

# *IUSS HEALTH FACILITY GUIDES*

# Facility Assembly Schedule Toolkit (FAST) briefing tool

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#### Accessing of these guides

This publication is received by the National Department of Health (NDoH), IUSS Steering Committee Chairman, Dr Massoud Shaker and Acting Cluster Manager: Health Facilities and Infrastructure Management, Mr Ndinannyi Mphaphuli. Feedback is welcome.

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#### Application and development process

These IUSS **voluntary standard/guidance documents** have been prepared as national Guidelines, Norms and Standards by the National Department of Health for the benefit of all South Africans. They are for use by those involved in the procurement, design, management and commissioning of public healthcare infrastructure. It may also be useful information and reference to private sector healthcare providers.

Use of the guidance in this documentation does not dissolve professional responsibilities of the implementing parties, and it remains incumbent on the relevant authorities and professionals to ensure that these are applied with due diligence, and where appropriate, deviations processes are exercised.

The development process adopted by the IUSS team was to consolidate information from a range of sources including local and international literature, expert opinion, practice and expert group workshop/s into a first level **discussion status** document. This was then released for public comment through the project website, as well as national and provincial channels. Feedback and further development was consolidated into a second level **development status** document which again was released for comment and rigorous technical review. Further feedback was incorporated into **proposal status** documents and formally submitted to the National Department of Health. Once signed off, the documents have been **gazetted**, at which stage documents reach **approved status**.

At all development stages documents may go through various drafts and will be assigned a version number and date. The National Department of Health will establish a **Health Infrastructure Norms Advisory Committee,** which will be responsible for the periodic review and formal update of documents and tools. Documents and tools should therefore always be retrieved from the website repository <u>www.iussonline.co.za</u> or Department webportal (forthcoming) to ensure that the latest version is being used.

The guidelines are for public reference information and for application by Provincial Departments of Health in the planning and implementation of public sector health facilities. The approved guidelines will be applicable to the planning, design and implementation of all new public-sector building projects (including additions and alterations to existing facilities). Any deviations from the voluntary standards are to be motivated during the Infrastructure Delivery Management Systems (IDMS) gateway approval process. **The guidelines should not be seen as necessitating the alteration and upgrading of any existing healthcare facilities**.

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Principle author Dr D.C.U Conradie

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Consultants that measured the list of facilities listed below, specifically Deon Steyn and Claude Kraëmer from SCION Architects and Project Management, and Bruce and Bryan Brinkman from B4 Architects that over and above their measuring assignment also designed a hypothetical hospital.

The software is the result of the input of discussions with many people in various task teams of the IUSS project. The following individuals deserve special mention:

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The facilities listed below have been analysed in detail by means of the CSIR's functional space classification and department classification to inform the types and sizes of different spaces, space assemblies, departments and the fundamental relationships between the four main space categories of workspace, workspace support, core and structure:

- Gamopedi Clinic
- Grassy Park Clinic
- Holy Cross Clinic
- Holy Cross Hospital
- Hypothetical medical ward (Brinkman)
- Johan Deo Clinic
- Khayelitsha District Hospital
- Kimberley Mental Health Facility
- Kwanokuthula CHC
- Large clinic
- Mitchells Plain District Hospital
- Mitchells Plain Ward
- Moloto Clinic
- Moses Kotane Hospital
- Natalspruit Hospital
- Hypothetical NDoH medical ward
- Hypothetical NDoH mental health ward
- Paarl Hospital
- Small clinic
- Uzimkulu Clinic
- Valkenberg Hospital
- Worcester Hospital
- Waterfall Hospital operating theatres

The abovementioned facilities provided useful insights into the current space usage patterns and provided realistic scalability and testing for the software development.

### **Table of contents**

FAST USER GUIDE SOFTWARE CONVENTIONS	IV
OVERVIEW	VI
COLOURS LEGEND	.VII
PART A – SOFTWARE DESIGN PHILOSOPHY	1
Introduction	1
The case-based reasoning (CBR) aspect of <i>FAST</i>	2
The disadvantages and caveats of case-based reasoning	3
The rule-based reasoning (RBR) aspect of FAST	3
CBR compared to other methods	
Design and planning principles	6
General design and planning principles	6
PART B – USE OF THE FAST SOFTWARE	7
Login	
Define facility	
Space assembly dashboard (create design menu item)	9
Assembly design from ROOM DETAIL LIBRARY	
Assemble design from ASSEMBLY LIBRARY	
Use of DESIGN COMPARATOR	
Create template design target	
Delete actions	
Space target dashboard (define design targets menu item)	. 18
THE ESPACE PARAMETRIC RULE DEFINITION AND AD HOC SPATIAL ANALYSIS	• •
LANGUAGE	
Introduction	
The ESPACE interactive language	
How to develop an ESPACE applet	
STEP 1: Declare applet variables	
STEP 2: Calculate % core space STEP 3: Calculate result to be returned	
Example of an ESPACE applet	
APPENDIX A – FORMAL ESPACE LANGUAGE SPECIFICATION	
APPENDIX A - FORMAL ESPACE LANGOAGE SPECIFICATION	-
APPENDIX C - FUNCTIONAL SPACE CLASSIFICATION	
APPENDIX D – DEPARTMENT CLASSIFICATION	
REFERENCES	. 67

#### List of figures

Figure 1: The IUSS strategic planning tools	vi
Figure 2: A typical example of the FAST drag-and-drop interface	1
Figure 3: Case-based reasoning compared to concept selection (collated by author from Kolodner (1993:18 Ulrich et al. (1995) and Pugh (1996))	
Figure 4: FAST main form. Provides access to all other features	7
Figure 5: Current Health Facility form that is used to define the main characteristics of the design	8
Figure 6: Create a design from ROOM DETAIL LIBRARY (Drag from 1 and Drop at 2 or 3)	9
Figure 7: FAST drawing display of room AAAD, a four-bed unit, excluding en suite that is 42.21 m <sup>2</sup> 1	0
Figure 8: Create a design from the ASSEMBLY LIBRARY (Drag from 1 and Drop at any position 2)	1
Figure 9: The FAST DESIGN COMPARATOR allows convenient comparison between two designs1	2
Figure 10: Select a design from the design repository for insertion into the DESIGN COMPARATOR	3
Figure 11: Create a new functional unit design target from a design assembly. (Drag from 1 and Drop a position 2)1	
Figure 12: Delete a specific room from the DESIGN ASSEMBLY (Step 1 and 2) (Drag from 1 and Drop at 2)1	5
Figure 13: Delete specific design assembly (Step 1 and 2) (Drag from 1 and Drop at 2)1	5
Figure 14: Delete entire design assembly (Step 1 and 2) (Drag from 1 and Drop at 2)1	6
Figure 15: Delete design comparator (Step 1 and 2) (Drag from 1 and Drop at 2)1	6
Figure 16: Delete assembly library item (Step 1 and 2) (Drag from 1 and Drop at 2)1	7
Figure 17: Delete entire project permanently from the design repository (Step 1 and 2) (Drag from 1 and Dro at 2)	
Figure 18: Delete entire project from design repository (Step 3 and 4) (Drag from 3 and Drop at 4)1	8
Figure 19: Create design target from FUNCTIONAL UNIT LIST phase 1 (Drag from 1 and Drop at 2)1	9
Figure 20: Create design target from FUNCTIONAL UNIT LIST phase 22	0
Figure 21: FAST interactive rule and ad hoc query builder2	2
Figure 22: Result of query in interactive environment	3
Figure 23: The yellow highlighted block indicates that the area in m <sup>2</sup> is the result of a resolved rule	4
Figure 24: ESPACE applet to calculate department areas	1
Figure 25: The applet section of the Interactive Query Builder	2
Figure 26: The FAST comma delimited interface standard3	6
Figure 27: Select a <i>FAST</i> comma delimited import file3	
Figure 28: Select a comma delimited file with a .txt extension3	
Figure 29: Confirm import of FAST comma delimited import file	9

#### List of tables

Table 1: FAST User Guide software conventions	iv
Table 2: Entering data in FAST	v
Table 3: IUSS: General hospital support (GNS) reference documents	vii
Table 4: A comparison between case-based, rule-based and model-based reasoning (collated by author)	5
Table 5: Implementation of Facility Level in FAST	8
Table 6: Summary of ESPACE functions	26
Table 7: The FAST comma delimited exchange format	36
Table 8: Example of a FAST comma delimited file that contains all the spaces for a small clinic	37

#### **FAST User Guide software conventions**

A wide range of terms are used to describe specific aspects of FAST. Many of these are used in slightly different contexts by different people. To ensure that there is no uncertainty regarding the intended meaning in FAST, lists of specific terms used in FAST are included.

Table 1: FAST User Guide software conventions	Table 1: FAST	User (	Guide software	conventions
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Convention	Use
	This is a <i>FAST</i> action. When a user drops an object on this target, then a specific action will be executed depending on the type of object. Many combinations are possible. There are currently six actions that can be combined with objects.
AAAF	All objects in <i>FAST</i> are coloured light blue (cyan). You can drag this object to another object target, or to an action, or vice versa.
Drag	Press the left mouse button and hold down until object target is reached.
	FAST drag-in-progress icon. When a user invokes a drag on a FAST object, this icon is displayed.
Drop	Position cursor over object target and release left button.
<space_assembly></space_assembly>	Microsoft Access database table name. You can use Microsoft Excel directly to extract data from <i>FAST</i> for external analysis purposes. <space_assembly> is the most important table, because the briefing space list is assembled here.</space_assembly>
Medical Ward         T         120         1254.96         1387.06           BAD         work space: beds         A         108         1191.85	This target example indicates that the number of beds are underprovided, being an actual 108 against a target of 120. The actual m <sup>2</sup> area is also smaller than the minimum in the range that should be between 1 254.96 and 1 387.06 m <sup>2</sup> in this example.
Surgical         T         70         886.45         979.77           BAN         work space: beds         A         76         993.50	This target example indicates that the number of beds are overprovided, being an actual 76 against a target of 70. The actual m <sup>2</sup> area is also larger than the maximum in the range that should be 886.45 m <sup>2</sup> , to 979.77 m <sup>2</sup> in this example.
Emergency Unit     T     2     22.82     25.22       ABA     work space: consulting     A     2     24.02	This target example indicates that the number of consulting rooms is on target, being 2 against a target of 2. The actual m <sup>2</sup> area is also within the range that should be between 22.82 m <sup>2</sup> and 25.22 m <sup>2</sup> .

The following basic data entry rules should be adhered to in order to facilitate sorting and retrieval of data:

- Entries should be done in English (facility name and descriptions).
- There should be no spaces leading any entry.
- Capital letters should preferably be used for classifications and codes.

#### Table 2: Entering data in FAST

Data type	Use
(AREA)	This is an area in m <sup>2</sup> used in cases such as a space area.
(CLASS)	This is a classification code that should not exceed 24 characters for the functional space classification, and 48 characters for the department classification.
(CODE)	This is a code that should not exceed 24 characters and is for example used for the ASSEMBLY LIBRARY, Assembly Code.
(RULE NAME)	This is the rule name and could be up to 48 characters long.
(DESCRIPTION)	This is a general description and can be up to 255 characters long.
(RULE)	Is a code fragment or applet that executes interactively in the FAST Interactive Rule/Query Builder or fires during the allocation of derived spaces in the FAST DESIGN ASSEMBLY panel.
	It is a memo field type that can contain 65 535 characters when entering data through the user interface, i.e. applet development.
(TELEPHONE NUMBER)	This is a structured field that is used for telephone numbers.
(CELLULAR NUMBER)	This is a structured field that is used for cellular numbers.
(LOOKUP CODE)	This is a code that is looked up from another definition table. Normally a friendly name is displayed while the code is stored in the database. In <i>FAST</i> the code does not exceed 64 characters.
(LATITUDE DEGREE)	It is the latitude degree that is a whole number in the range 0 to 90.
(LATITUDE MINUTES)	It is the minute part of the latitude and is a whole number in the range 0 to 59.
(LATITUDE SECONDS)	It is the second part of the latitude and is a whole number in the range 0 to 59.
(LONGITUDE DEGREE)	It is the longitude degree that is a whole number in the range 0 to 180.
(LONGITUDE MINUTES)	It is the minute part of the longitude and is a whole number in the range 0 to 59.
(LONGITUDE SECONDS)	It is the second part of the longitude and is a whole number in the range 0 to 59.
(DECIMAL DEGREE)	It is a field that contains a degree such as site slope. It is a decimal with two- decimal accuracy.

#### **OVERVIEW**

This document describes the software design philosophy and operation of the Facility Assembly Schedule Toolkit (*FAST*) that is used to prepare and check the accommodation schedule of new facilities, as well as additions and alterations to existing facilities against a given set of target norms. *FAST* provides output to the Departmental Cost Calculator to estimate the construction cost. It is part of a hierarchy of strategic software tools that start with the Infrastructure Optimisation Planning Toolkit (IOPT) at the top, the Planning Unit Calculator/Translator, Order of Magnitude Cost Calculator, Facility Assembly Schedule Toolkit and Departmental Cost Calculator (Figure 1).

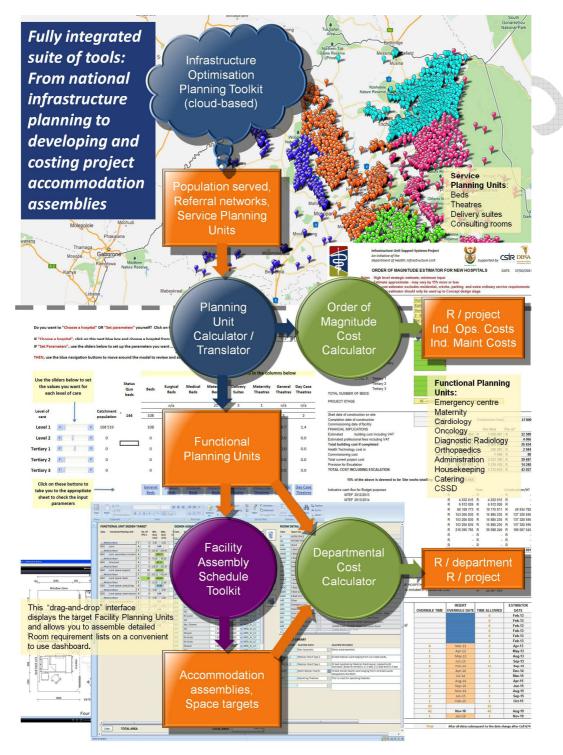


Figure 1: The IUSS strategic planning tools

The main input into *FAST* originates from the Planning Unit Calculator in the form of functional planning units. Once a facility has been defined, FAST is able to provide output to the Departmental Cost Calculator where the construction cost can be estimated (Figure 1).

Users of *FAST* should refer to all other IUSS documents in order to understand the design philosophy for the Clinical Services, Support Services, Healthcare Environment/Cross-cutting Issues and Procurement and Operation. You will notice in Table 3 that all aspects are important, placing a significant burden on the design team and the *FAST* user. However, the case-based reasoning (CBR) and rule-based design of *FAST* are intended to make it as easy as possible for the user by reminding him/her of the requirements by inter alia providing contextual spatial assemblies.

CLINICAL SERVICES			SUPPORT SERVICES						PROCUREMENT AND OPERATION		
	ssential	Recommended	SERVICES	Essential	Recommended	ENVIRONMENT/CROSS- CUTTING ISSUES	Essential	Recommended	AND OPERATION	issential	Recommended
	Esse	Rec		Ess	Rec		Esse	Rec		Esse	Rec
Adult inpatient services	x		Administration and related services	x		Generic room requirements	x		Integrated infrastructure planning	x	
Clinical and specialised diagnostic laboratory guidelines	x		General hospital support services	х		Hospital design principles	x		Briefing manual	x	x
Mental health	x		Catering services for hospitals	x		Building engineering services	х		Space guidelines	х	
Adult critical care	x		Laundry and linen department	x		Environment and sustainability	x		Cost guidelines	x	
Emergency centres	x		Hospital mortuary services	x		Materials and finishes		x	Procurement		x
Maternity care facilities	x		Nursing education institutions	x		Future healthcare environments		x	Commissioning health facilities		x
Adult oncology facilities	x		Health facility residential	x		Healthcare technology		x	Maintenance		x
Outpatient facilities	x		Central sterile service department	х		Inclusive environments		x	Decommissioning		x
Paediatrics and neonatal facilities	x		Training and resource centre		х	Infection prevention and control		x	Capacity development		x
Pharmacy	x		Waste disposal	х		Information technology and infrastructure	x				
Primary healthcare facilities						Regulations	x				
Diagnostic radiology	x		-								
Adult physical rehabilitation	x										
Adult post-acute services	x										
Facilities for surgical procedures	x										
TB services	х										

#### Table 3: IUSS: General hospital support (GNS) reference documents

#### **Colours legend**

Consultants	
Administrators	
Related documents	

FAST is a case- and rule-based drag-and-drop software tool that enables the professional health facility design team to quickly assemble a list of accommodation by using predefined assemblies and compare it against a norm or against other comparable precedent facilities.

#### Introduction

*FAST is* a novel briefing tool to facilitate the creation of health building briefs. The prototype was demonstrated to various groups, such as the IUSS Cost Norms Working Group and at the 2013 SAFHE Conference in Cape Town. On the basis of subsequent comments and discussions, the fundamental software capabilities were determined and are incorporated in *FAST* v2.0. The essential purpose of this software tool is to effectively and efficiently assist in the translation of the strategic requirements for a particular new health facility into a detailed spatial design brief for use by the professional team such as the architects, Quantity Surveyors and NDOH.

The software application is relational database-based and uses a convenient and efficient 'drag-and-drop' interface illustrated in Figure 2. The system uses a novel concept of *design objects* (light blue coloured blocks) and *actions* (square blocks with icons) implemented by means of a drag-and-drop interface. At the moment, six types of *actions* are supported and when combined with the various *objects*, more than 25 tasks can be achieved. When an *object* (indicated by light blue on the interface) is dragged and dropped on top of another *object* or alternatively on top of an *action* button, the system automatically knows what the user is trying to achieve from the context and order of the action.

This software architecture significantly reduces the number of command buttons required on the screen and also simplifies the complexity of the briefing process that requires the user to consider many different design options.

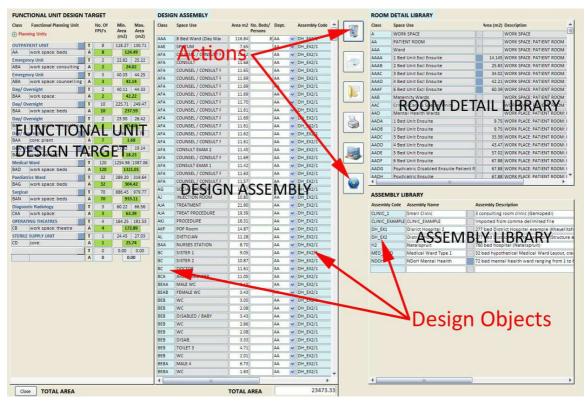


Figure 2: A typical example of the FAST drag-and-drop interface



#### The case-based reasoning (CBR) aspect of FAST

CBR is one of the two fundamental approaches that have been used in the design of *FAST*. CBR has several advantages that make it an appropriate method to use in *FAST*. The list below has been collated and adapted from Kolodner (1993). In terms of an IUSS project, a case could range from a single room such as a bed unit, an assembly of rooms such as a medical ward, or it could be an entire health facility. The following advantages specifically related to the architectural briefing and design process as implemented in *FAST* can be identified:

- 1. CBR allows the designer to propose solutions to design problems quickly, because it avoids the time necessary to derive those answers from scratch.
- 2. CBR allows a designer to propose solutions in domains that are not completely understood. This is of particular importance to the advanced planning that is necessary to design and build complex facilities such as hospitals. Although extensive IUSS Health Facility guides have been developed, not everything in the design of a complex health facility can be expressed in terms of mathematical rules.
- 3. Remembering previous designs is particularly useful in warning of the potential for problems that have occurred in the past, alerting a designer to take action to avoid previous mistakes.
- 4. CBR can be used as a communication tool between designers and other less design-literate participants to clearly communicate the design intentions.
- 5. Cases help a designer to focus his design activity on important parts of a problem by pointing out what features of a problem are the important ones.
- 6. When CBR is used to solve problems, solutions can be justified by the cases they are derived from. In a domain where it is difficult to evaluate solutions objectively, such as architectural design, CBR has the advantage of providing illustrations of the effects of particular solutions.
- 7. CBR can be designed to anticipate potential problems as natural part of the reasoning process. Unsuccessful experiences with past solutions can be used in case-based systems to anticipate possible problems that might result from solving a design problem a certain way. In general, this capability adds efficiency. In architectural design anticipation of problems is critical.
- 8. CBR provides a way for designers and computers to interact in a realistic way. CBR is fundamentally inspired by human behaviour. Certain tasks in design, such as the calculation of energy consumption or acoustic performance, are easier for a computer to achieve, whereas aesthetic design decisions are best decided by the designer. Designers are good with creative reasoning, but poor at remembering the full range of applicable cases. Humans tend to be biased in their memory or as novices they have not yet had the experiences they need to solve the problem. During an interview of the professional team involved in a large and complex construction project, this fact was emphasised.
- 9. The knowledge acquisition for a CBR system is natural. Concrete examples rather than piecemeal rules can be used. Experts, such as experienced health practitioners, find it difficult to report the knowledge they use to solve problems. They are quite at home reporting their experiences and discussing the ways in which cases are different from one another.
- 10. CBR should be considered when it is difficult to formulate domain rules, but where cases are available. Formulating specific rules is difficult in weak theory domains such as architectural briefing and design. In this domain knowledge is very difficult to obtain, incomplete, uncertain or sometimes inconsistent. It is impossible to formulate rules when there is a great amount of variability in design situations that should have the same outcome.
- 11. CBR can be considered when rules that can be formulated require more input information than what is normally available. This may be due to incomplete specified problems, or the fact that the knowledge required is not available at design (problem-solving) time. This is often the case in the construction industry and fast-track projects where all project information is not available upfront.
- 12. CBR should be considered when it is too complex (expensive in computational terms) to use rules because the average rule chain is too long.
- 13. CBR should be used when generally applicable knowledge is not sufficient to solve a problem. This could be due to the fact that knowledge changes with context, or because some of the knowledge required to solve the problem is used only under special circumstances.



- 14. CBR should be considered when a case library already exists. In the IUSS project a number of health facilities have already been analysed and is available in structured format.
- 15. When no fast computation method exists for deriving a solution from scratch, CBR allows new solutions to be derived from precedent ones. Health facilities can be quickly configured by using different exemplar department and architectural assemblies.
- 16. When there is no fast computational method for evaluating a solution, or when there are so many unknowns that evaluation methods are unusable or difficult to use, CBR provides an alternative.
- 17. CBR allows evaluation of solutions when no direct algorithmic method is available for evaluation.
- 18. Cases are useful in interpreting open-ended and ill-defined concepts.

#### The disadvantages and caveats of case-based reasoning

CBR has several disadvantages and caveats in architectural design that should also be considered. The list below has been collated and adapted from Kolodner (1993):

- 1. CBR requires cases or spatial assemblies in the context of this document. Traditionally the effort in building a CBR system went into case collection. It is apparent from a study and interviews<sup>1</sup> with the designers of other CBR systems that it can be an enormous effort. To be successful in the architectural profession and the construction industry it should not require such extraordinary efforts. The case library should be automatically assembled during the normal professional design activities.
- 2. For CBR to be useful and reliable, cases with similar problem statements should have similar solutions. CBR is based on the premise that situations recur in a predictable way. Adaptation modifies old solutions to fit new requirements. If a domain is discontinuous where similar situations require wildly different kinds of solutions, then CBR cannot be used and would be misleading. This is unfortunately only partially true in architecture, because creative designers do not always solve related design problems in a similar way.
- 3. CBR solutions are not guaranteed to be optimal and in health briefing and design it unlikely that this ambitious goal would ever be achieved. The full range of possible design solutions is usually not explored in a CBR-system intended for design support. Optimal or more creative solutions may be missed due to time constraints or incomplete knowledge of the design team. This is generally a problem in any heuristic system. The designer cannot escape his responsibilities; however, the CBR system will remind him of design aspects he might have forgotten and make sure that essential spaces are not forgotten.
- 4. An inexperienced case-based user might be tempted to use old cases blindly, relying on previous experience without validating it properly in the new situation.
- 5. A case-based user might allow cases to bias him or her too much in solving a new problem.
- 6. Case libraries require considerable storage space. In the design of CBR-systems, special consideration must be given to ensure a long life of the case with changing technology. A large sum of money in terms of intellectual capital, time and effort is encapsulated in the case library. Persistence of data is therefore of paramount importance.
- 7. Inexperienced people are often not reminded of the most appropriate sets of cases when they are reasoning.

#### The rule-based reasoning (RBR) aspect of FAST

A RBR system has also been implemented in FAST alongside the CBR system to calculate derived spatial sizes, where the actual size of the space can only be known in the context of the final design. The RBR-system has been implemented by means of an interpretive spatial programming language called ESPACE. A simple example of a rule is the contextual calculation of the amount of secondary circulation space in a ward when a *FAST* user is creating a new design. By means of the introduction of ESPACE into *FAST*, the



<sup>&</sup>lt;sup>1</sup> Janet Kolodner and Craig Zimring personal communication during April 2000 at the Georgia Institute of Technology, Atlanta, Georgia, USA.

software developers created special event-driven formulas that automatically execute (trigger) when a *FAST* user drags-and-drops derived space types into the DESIGN ASSEMBLY area.

Spaces listed in the ROOM DETAIL LIBRARY can be only one of two types. It must either have a fixed preallocated size in m<sup>2</sup>, or it must have an ESPACE rule attached to it. If neither of the two applies, it means it will be entirely the user's responsibility to determine an acceptable m<sup>2</sup> size within the specific context.

Detailed documentation of how this all works is included below.

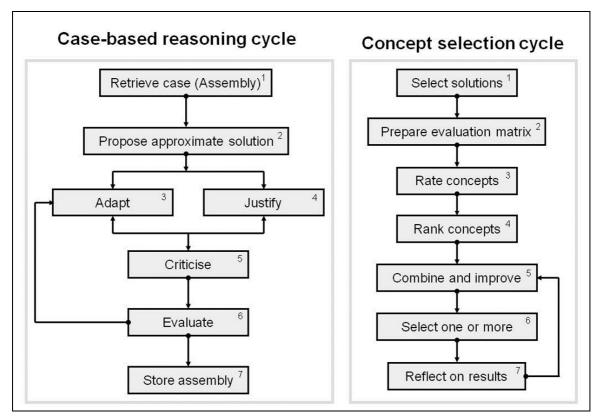
#### **CBR compared to other methods**

The CBR/CBD cycle (Kolodner 1993:18) has striking similarities with the product development method of concept selection proposed by (Pugh, 1996; Ulrich et al., 1995) (Error! Reference source not found.3). In generalised terms, the CBD-cycle is the case equivalent of concept selection.

The typical stages of the CBD-cycle are (Kolodner et al. 1996:35):

- 1. *Case retrieval (assembly).* Partially matching cases must be retrieved to facilitate reasoning. This is called *case retrieval.* The case was created in the first instance by a *case storage* process also called *memory update.*
- 2. *Solution proposal.* In problem-solving CBR, an approximate solution to the new problem is proposed by extracting the solution from the retrieved case.
- 3. *Adaptation*. This is the process of altering an old solution to fit it to the context of the new situation.
- 4. *Criticism*. This is a critical analysis of the new solution before applying it.
- 5. Justification. This is the process of creating an argument for the proposed solution, done by a process of comparing and contrasting the new situation with prior cases. Sometimes justification might be followed by a criticism step in which hypothetical situations are generated and the proposed solution applied to them in order to test the solution.
- 6. *Store assembly (memory update)*. The new case is permanently saved for future use.





### Figure 3: Case-based reasoning compared to concept selection (collated by author from Kolodner (1993:18), Ulrich et al. (1995) and Pugh (1996))

The process as illustrated in Figure 3 is conceptually typical of how a FAST user would use the system.

Table 3 compares the characteristics of *case-based reasoning*, (CBR), *rule-based reasoning* (RBR) and *model-based reasoning* (MBR)<sup>1</sup>.

These differences lead to differences in knowledge acquisition. In RBR, knowledge is extracted from expert opinion and encoded in rules. This is often difficult to achieve. In CBR most (but not all) knowledge is in the form of cases. CBR needs adaptation rules and similarity metrics and more types of knowledge, but knowledge is easier to acquire.

In the past both MBR and CBR were developed as methods for avoiding reasoning from scratch. Both compose knowledge into large chunks and reason using large chunks. The differences mostly have to do with the content of the knowledge used and the conditions of applicability for each.

Case-based reasoning	Rule-based reasoning	Model-based reasoning
Cases in case libraries are constants that describe the way things work.	Rules in rule bases are patterns.	Store causal models of devices or domains.
Cases are retrieved that match the input partially.	Rules are retrieved that match the input exactly.	
Cases are retrieved first, approximating the entire solution at once, then adapted and refined to a final answer.	Rules are applied in an iterative cycle of micro events.	

Table 4: A comparison between case-based, rule-based and model-based reasoning (collated by author)

<sup>1</sup> Janet Kolodner is of the opinion that CBR, MBR and RBR form a continuum. Personal communication 14 April 2000.



Case-based reasoning	Rule-based reasoning	Model-based reasoning
Cases are large chunks of domain knowledge, quite likely redundant, in part, with other cases. Based on idiosyncratic knowledge, specific to episodes but mostly not normative. Provides methods for constructing solutions.	Rules are small, ideally independent but consistent pieces of domain knowledge.	Emphasise general knowledge that covers a domain. Models hold knowledge needed for validation or evaluation of solutions but do not provide methods for constructing solutions.
CBR can be used both when a domain is well and not so well understood. In the latter case it assumes the role of a generalised model.	Not applicable	Is used when a domain is well enough understood to enumerate a causal model.
Provides for efficient solution generation and evaluation is based on the best cases available.	Not applicable	Provides a means of verifying solutions, but solution generation is unguided.
Needs a means of evaluating its solutions, guiding its adaptation and knowing when two cases are similar.	Not applicable	Models provide a means of evaluating its solutions.

#### **Design and planning principles**

Specific hospital design principles are dealt with extensively in a separate IUSS document and must be read in conjunction with this document when creating a new design brief with *FAST*.

#### **General design and planning principles**

There are a number of planning principals that need to be emphasized and some of them need to be directly considered when creating a brief. Please refer to the other related documents listed in the IUSS: General hospital support (GNS) reference documents. The Hospital design Principles, especially the Clinical Services, Support Services and Health care Environment as summarized in Table 3 above should be referred to.

The planning of the required space includes the following requirements:

- 1) *Personnel* How many people are there at any given time in a specific place to perform a specific task or procedure?
- 2) Activities- What procedures are to be performed?
- 3) Equipment What equipment is required that will occupy the space?
- 4) Security Access control to be determined by the hospital management



6

#### PART B – USE OF THE FAST SOFTWARE

When the word 'design' is used in the context of this document it refers to the selection of spaces with the purpose of creating a schedule of spaces to support the briefing process and not design in the traditional holistic sense of architecture. The output from *FAST* is in the form of reports and spreadsheets that provide input into other software and processes for analysis purposes and are used to essentially determine if the design is within spatial, functional and cost norms.

#### Login

The main *FAST* screen is shown below (Figure 4). It provides access to all other features of the program, such as the definition of the briefing project, the creation of design targets and the creation of the design.

A FAST v2.0 Maii	n Form			х
	FAST Facility Assembly Sc	hedule Toolkit	ţ	
Design Functions	System Administration	Rule Definition	1	
	<ul> <li>Define Facility</li> <li>Define Design Targe</li> <li>Create Design</li> </ul>	ts		
Close Form				

#### Figure 4: FAST main form. Provides access to all other features

#### **Define facility**

This form is used to enter and edit the main characteristics of the facility to be designed and can be described as the birth certificate of the design. Most of the fields are self-explanatory; however, the 'Designated Level of Facility' field needs special mention.

This field is accessible through the 'FACILITY\_LEVEL' system variable in the ESPACE rule programming language. It is especially useful to distinguish or have different rules for different types of hospital. The 'FACILITY\_LEVEL' system variable returns the following values (Table 4):



Table 5: Implementation of Facility Level in FAST

Implementation of Health Facility Lev	vel in <i>FAST</i>
Type of health facility	Level number accessible through 'FACILITY_LEVEL' system variable
Clinic	1
Community Health Centre	2
District Hospital (Level 1)	3
Outreach Mobile	4
Regional Hospital (Level 2)	5
Special Maternity	6
Special Psychiatric	7
Special Tropical	8
Tertiary Hospital (T1) Developing	9
Tertiary Hospital (T2) Fully Developed	10
Tertiary Hospital (T3) National Referral Hospital	11
Tertiary Hospital (T4) Central Referral Hospital	12

PMIS Code	DH_EX2
Facility Name	277 bed district hospital. (Khayelitsha Revised)
Postal Address	PO Box 395
Physical Address	Unit 8, Bloomingdales Office Park 34 Ninth Avenue Walmer, Port Elizabeth.
Telephone Number	(012) 841 2551
Cellular Number	072 203 7960
Accountable Officer Email Address	s dconradi@csir.co.za
Site Description	This is a demonstration site located on a flat site within a Pretoria climate.
Type of Development	Greenfield
Site Area (m2)	
Designated Level of Facility	District Hospital (Level 1)
Site Slope in Degrees	1.51
Type of Soil	Rock
Type of Climate at Site	
Location	
Latitude Degre	ees 26.00 Minutes 40.00 Seconds 30.00
Longitude Degree	ees 28.00 Minutes 41.00 Seconds 30.12

Figure 5: Current Health Facility form that is used to define the main characteristics of the design

INFRASTRUCTURE UNIT SUPPORT SYSTEMS (IUSS) PROJECT Health Facility Guides: 10 September 2014 Facility Assembly Schedule Toolkit briefing tool (FAST) [PROPOSAL V.3]



#### Space assembly dashboard (create design menu item)

This is the main form where accommodation schedules are designed. The following methods can be used to create a design:

- It can be created room by room from the ROOM DETAIL LIBRARY. (Least efficient)
- A design can be imported from an external source such as a CAD system through the *FAST* comma delimited exchange format documented elsewhere in this document in Appendix B. (Very efficient)
- It can be assembled from predefined assemblies from the ASSEMBLY LIBRARY. (Very efficient)

#### Assembly design from ROOM DETAIL LIBRARY

This is the most fundamental and slowest (from a productivity point of view) design action that *FAST* supports. This can be used to achieve the following tasks:

- A new design assembly can be created from a set of rooms.
- An existing design can be modified by adding or deleting rooms.

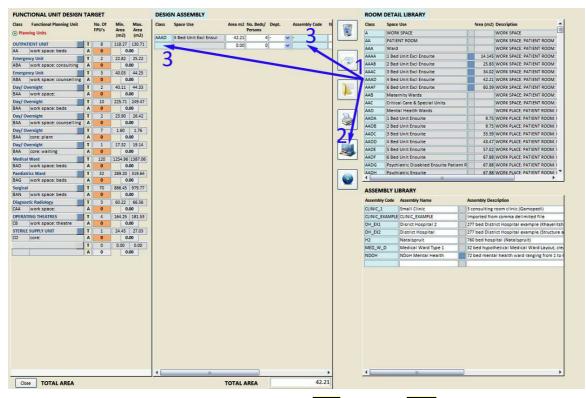


Figure 6: Create a design from ROOM DETAIL LIBRARY (Drag from 1 and Drop at 2 or 3)

Figure 6 illustrates the various possible actions. If a space has a light blue square block indicator in the **ROOM DETAIL LIBRARY** between the Space Use and Area ( $m^2$ ) fields, then it means that there is an illustrative layout drawing attached to the item. You can view this drawing by dragging the **Code** field indicated with a 1 (in this case Code AAAD) from the **ROOM DETAIL LIBRARY** and drop it on the display drawing action indicated with a 2. This will launch the *FAST* viewer that will give you an indication of the design of a particular layout such as the  $m^2$  area, dimensions and internal layout. (Figure 7)

Once the designer is satisfied with the selection of a particular room type, it can be dragged and dropped into the **DESIGN ASSEMBLY** area by dropping the room either on the **Class** field or the **Assembly Code** field.



You will notice that the **Dept.** and **Assembly Code** fields contain a '-' at this stage. This indicates that the particular space has not yet been allocated to a health facility department, i.e. it is effectively 'homeless'. At this stage you can allocate a department or wait until you have all the rooms for a particular department and then allocate them all. The **Assembly Code** is at this stage unallocated, because spaces were dropped in one-by-one from the **ROOM DETAIL LIBRARY**. A code will be allocated when a particular set of rooms such as a complete ward design is transferred to the **ASSEMBLY LIBRARY** and then becomes a named assembly that can be used in future designs. If a named assembly is brought into the **DESIGN ASSEMBLY AREA**, then the **Assembly Code** and version number are displayed in this field.

If you dragged-and-dropped the wrong space type into the **DESIGN ASSEMBLY**, you can easily delete it by executing the action illustrated in Figure 12. Be sure to drag-and-drop from the **Class** field and not the **Assembly Code** field, unless you want to delete an entire assembly.

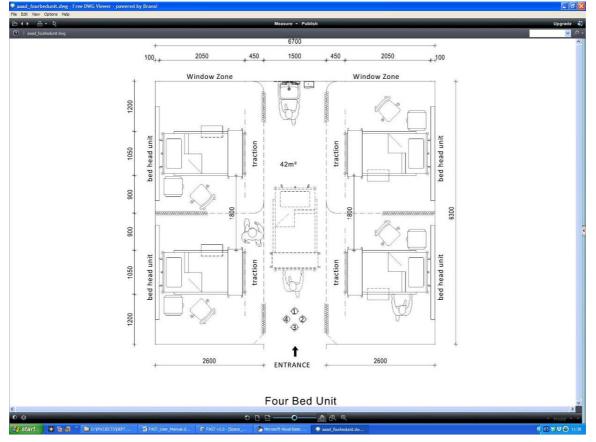


Figure 7: FAST drawing display of room AAAD, a four-bed unit, excluding en suite that is 42.21 m<sup>2</sup>

#### Assemble design from ASSEMBLY LIBRARY

This is the most efficient (from a productivity point of view) design action that *FAST* supports. This can be used to achieve the following tasks:

- Large and complex design assemblies can be quickly created from assemblies that, for example, contain an entire ward.
- An existing design can be modified by adding or deleting single rooms or entire assemblies due to the introduction of version numbers in the Assembly Code field.



FUNCTIONAL UNIT DESIGN	ARGET			DESIG	IN ASSEMBLY					1.	NOOM DE	TAIL LIBRARY	
Class Functional Planning Unit	No. Of	Min.	Max.	Class	Space Use	Area m2	lo. Beds/ Persons	Dept.	Assembly Code	137	Class Sp	ace Use	Area (m2) Description
Planning and Functional Units	FPU's	Area (m2)	Area (m2)	AAA	2 Bed Ward	27.36		BAD (			A W	DRK SPACE	WORK SPACE
Aedical Ward	T 32	351 16	288 12	AAA	Bed Ward	la seconda da la seconda d			MED_W_D/1		AA PA	TIENT ROOM	WORK SPACE: PATIENT ROOM
IAD work space; beds	A 32	369.		11011010		27.27			MED_V_D/1		AAA W	ard	WORK SPACE: PATIENT ROOM:
Aedical Ward	<b>T</b> 1	10.87			Bod Ward	27.33			MED_W D		AAAA 18	led Unit Excl Ensuite	14.145 WORK SPACE: PATIENT ROOM:
AD work space: consulting	A 1	11.		AAA	4 Bed Ward	40.67			MED_W_0/1		AAAB 28	led Unit Excl Ensuite	25.83 WORK SPACE: PATIENT ROOM:
Viedical Ward	T 1	14.93	16.50	AAA	4 Bed Wah	40.74			MED_W_D/1		AAAC 3 E	led Unit Excl Ensuite	34.02 WORK SPACE: PATIENT ROOM:
AD work space: treatment	A 1	15.	71	AAA	4 Bed Ward	40.71			MED_W_D		AAAD 48	led Unit Excl Ensuite	42.21 WORK SPACE: PATIENT ROOM:
Medical Ward	T 45	255.96	282.91	AAA	4 Bed Ward	40.74			MED_W_D/		AAAF 68	led Unit Excl Ensuite	60.39 WORK SPACE: PATIENT ROOM:
AD work space support:	A 45	269.	.43	AAA	4 Bed Ward	40.67			MED_W_D/1		AAB MI	ternity Wards	WORK SPACE: PATIENT ROOM:
Medical Ward	T 11	11.61	12.83	AAA	1 Bed Ward	21.71			MED_W_D/1		AAC Cri	tical Care & Special Units	WORK SPACE: PATIENT ROOM:
BAD core: plant	A 11	12.	22	AAA	1 8ed Ward	21.73			MED_W_D/1		AAD M	ental Health Wards	WORK PLACE: PATIENT ROOM: I
Medical Ward	T 1	180.24		AAA	4 Bed Ward	40.11	4	BAD	MED_W_D/1		AADA 18	led Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
BAD core: secondary circulati		189.	A State of the second s	AFA	Consulting Rm	11.44			MED_W_D/1		AADB 2.8	led Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
Medical Ward	T 1	78.40		AJA	Treatment Room	15.71			MED_W_D/1			led Unit Ensuite	33.39 WORK PLACE: PATIENT ROOM: I
BAD structure:	A 1	82.	and the second	BAA	Nurse s Station	26.55			MED_W_D/1			led Unit Ensuite	43.47 WORK PLACE: PATIENT ROOM: I
	T 0			BCA	Ward Office	10.82	0	BAD N	MED_W_D/1			led Unit Ensuite	57.02 WORK PLACE: PATIENT ROOM: I
	A 0	0.0	10	BEB	En-Suite	1.83	0	BA	MED_W_D/1			led Unit Ensuite	67.88 WORK PLACE: PATIENT ROOM: I
				BEB	En-suite	3.88	0	BAD	MED_W_D/1			chiatric Disabled Ensuite Patie	
				BEB	Shower	3.86	0	BAD	MED_W_D/1			chiatric Ensuite	67.88 WORK PLACE PATIENT ROOM I
				BEB	wc	1.92	0	BAD N	MID_W_D/1		1	In a la consulte	
				BEB	En-Suite	1.83	0	BAD N	MED_V_D/1		-		
				BEB	Shower	3.86	0	BAD N	MED_W_V1		ASSEMBLY	LIBRARY	
				BEB	WC	1.92	0	BAD N	MED_W_D/1		Assembly Cod	e Assembly Name	Assembly Description
				BEB	WC	1.91	0	BAD 💊	MED_W_D/1		CLINIC_1	Small Clinic	3 consulting room clinic (Gamopedi)
				BEB	Shower	3.88	0	BAD N	MED_W_D/1		CLINIC_EXAM	PLE CLINIC_EXAMPLE	Imported from comma delimited file
				BEB	wc	1.91	0	BAD N	MED_W_D/1		DH_EX1	Disrict Hospital 2	277 bed District Hospital example (Khaveli
				BEB	En-Suite	1.82	0	BAD N	MED_W_D/1		DH_EX2	District Hospital	277 bed District Hospital example (Structur
				BEB	Shower	3.85	0		MED_W_D/1		H2	Natalspruit	760 bed hospital (Natalspruit)
				BEB	wc	1.91	0		MED W D/1		MED_W_D	Medical Ward Type 1	32 bed hypothetical Medical Ward Layout, i
				BEB	En-Suite	1.83			MED_W_D/1	I 1	NDOH	NDoH Mental Health	72 bed mental health ward ranging from 1
				BEB	Ass. Bath	16.90			MED_W_D/1		noon-	noor mentor neoren	
				BEB	En-suite	3.87			MED_W_D/1		( <u>1.)</u>		
				BEB	Shower	3.88			MED_W_D/1				
				BEB	Ass. Shower	7.16			MED_W_D/1				
				BEB	WC	1.91			MED_W_D/1				
				BEB	En-Suite	1.91			MED_W_D/1				
				BEB	Shower	4.12			MED_W_D/1				
				BEB	WC	4.12			MED_W_D/1				
				BEB		1.82							
				And and a second second	En-Suite				MED_W_D/1				
				BEB	Shower	3.90			MED_W_D/1				
				868	En-Suite	1.83			MED_W_D/1				
				BEB	Shower	3.65			MED_W_D/1				
				BEB	WC	1.74			MED_W_D/1				
				BEB	En-Suite	1.78	01	BAD N	MED_W_D/1				
				010	Ensone	4.70		UND I					

Figure 8: Create a design from the ASSEMBLY LIBRARY (Drag from 1 and Drop at any position 2)

Figure 8 illustrates the various possible actions. Select an existing design assembly from the **ASSEMBLY LIBRARY** if there is a suitable one. If an assembly has a light blue square block indicator in the **ASSEMBLY LIBRARY** between the Assembly Name and Assembly Description, then it means that there is an illustrative layout drawing attached to the item. You can view this drawing by dragging the **Assembly Code** field indicated with a 1 (in this case Code MED\_W\_D) from the **ASSEMBLY LIBRARY** and drop it on the display drawing action illustrated above in Figure 8. This will launch the *FAST* viewer that will give you an indication of the design of a particular layout.

Once the designer is satisfied with the characteristics of a particular assembly type, it can be dragged and dropped into the **DESIGN ASSEMBLY** area by dropping the assembly room either on the **Class** field, or the **Assembly Code** field.

You will notice that the **Dept.** field will contain the department that was originally allocated when the assembly was built. The **Assembly Code** fields will contain a 'MED\_W\_D/1'at this stage. This indicates that after insertion of assembly code 'MED\_W\_D', version number '1' was allocated to it. This is a particularly useful feature. If you insert another instance of the same assembly version, number '2' will be allocated to all the spaces that belong to that instance. The fact that new version numbers are allocated makes it very easy to delete an entire assembly from the **DESIGN ASSEMBLY** avoiding the tedium of deleting each room separately.

If you dragged-and-dropped the wrong assembly into the **DESIGN ASSEMBLY** you can easily delete it by executing the action illustrated in Figure 9. Be sure to drag-and-drop from the **Assembly Code** field if you want to delete an entire instance of an assembly. As before, if you want to delete or add individual spaces to the assemblies contained in the **DESIGN ASSEMBLY**, you can easily delete it by executing the action illustrated in Figure 9. Be sure to drag and drop from the **Class** field to remove single spaces.

#### **Use of DESIGN COMPARATOR**

The *FAST* DESIGN COMPARATOR is used to compare different designs with regard to sizes, types and number of spaces. This is useful to compare precedent designs against a new DESIGN ASSEMBLY.



JESIC	IN COMPARATOR			DESIG		100 M			1	KOOM DE	TAIL LIBRARY	
lass	Space Use	Area m2 No Perso	Reds/ FU.	Class	Space Use	Area - No	. Beds/ Dept.	Assembly Code	1 3	Class S	ace Use	Area (m2) Description
AA	2 Bed Ward	27.27	2 BAD	111	6 Bed Ward	60.41	6 BAD	DH_EX2/1		1	ORK SPACE	WORK SPACE
AA	1 Bed Ward	21.73	1 BAD	AAA	b bed Ward	62.93	6 BAD	V DH DAN	19		ATIENT ROOM	WORK SPACE: PATIENT ROOM
AA	1 Bed Ward	21.71	1 BAD	AAA	1 Bed Ward	17.67	1 8AD	✓ DH EX2/1		AAA W	ard	WORK SPACE: PATIENT ROOM:
AA	4 Bed Ward	40.67	4 BAD	AAA	1 Bed Ward	17.07	1 8AD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>	1.000	AAAA 1	Bed Unit Excl Ensuite	14.145 WORK SPACE: PATIENT ROOM:
AA	4 Bed Ward	40.74	4 BAD	AAA	1 Bed Ward	17.67	BAD	<ul> <li>DH EX2/1</li> </ul>		AAAB 2	Bed Unit Excl Ensuite	25.83 WORK SPACE: PATIENT ROOM:
AA	4 Bed Ward	40.71	4 BAD	AAA	6 Bed Ward	62.93		CH_EX2/1			Bed Unit Excl Ensuite	34.02 WORK SPACE: PATIENT ROOM:
AA	4 Bed Ward	40.71	4 BAD	AAA	6 Bed Ward	56.61	6 BAD	✓ DH_EX2/1		AAAD 4	Bed Unit Excl Ensuite	42.21 WORK SPACE: PATIENT ROOM:
LAA	4 Bed Ward	40.74	4 BAD	AAA	6 Bed Ward	60.41	6 BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>		ALC: NOT THE REAL PROPERTY OF	Bed Unit Excl Ensuite	60.39 WORK SPACE: PATIENT ROOM:
AA	4 Bed Ward	40.67	4 BAD	AAA	1 Bed Ward	16.75	1 BAD	<ul> <li>DH EX2/1</li> </ul>		AAB N	aternity Wards	WORK SPACE: PATIENT ROOM:
AA	2 Bed Ward	27.33	2 BAD	AAA	2 Bed Ward	24.19	2 8AD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>	5	AAC C	itical Care & Special Units	WORK SPACE: PATIENT ROOM:
LAA	2 Bed Ward	27.35	2 BAD	AAA	6 Bed Ward	68.46	6 BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>			ental Health Wards	WORK PLACE: PATIENT ROOM: I
AFA		10.00	0 BAD	AAA	6 Bed Ward	60.57	6 BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>		AADA 1	Bed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
UA	Consulting Rm Treatment Room	15.71	0 BAD	AAA	2 Bed Ward	24.47	2 BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>		AADB 2	Bed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
BAA	Nurse s Station	26.55	0 BAD	AAA	6 Bed Ward	69.36	2 6AD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>		AADC 3	Bed Unit Ensuite	33.39 WORK PLACE: PATIENT ROOM: I
SAA BCA	Ward Office	10.82	0 BAD	AAA	2 Bed Ward	24.33	2 8AD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>	100mm	AADD 4	Bed Unit Ensuite	43.47 WORK PLACE: PATIENT ROOM: I
BEB	WC WC	10.82	0 BAD	AAA	2 Bed Ward	17.67	2 BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>	200	AADE 5	Bed Unit Ensuite	57.02 WORK PLACE: PATIENT ROOM: I
BEB		3.88	0 BAD	AAA		24.47	2 8AD	<ul> <li>DH_EX2/1</li> <li>DH EX2/1</li> </ul>		AADF 6	Bed Unit Ensuite	67.88 WORK PLACE: PATIENT ROOM: I
BEB	En-suite	3.86	0 BAD	AAA	2 Bed Ward		2 BAD	and the second s		AADG P	sychiatric Disabled Ensuite Pa	atient R 67.88 WORK PLACE: PATIENT ROOM: I
	Shower			1	2 Bed Ward	17.04		DH_EX2/1			sychiatric Ensuite	67.88 WORK PLACE: PATIENT ROOM: I
EB	WC	1.91	0 BAD	AAA	6 Bed Ward	63.57	6 BAD	DH_EX2/1		4	<u>UI</u>	
BEB	En-suite	3.87	0 BAD	AAA	2 Bed Ward	24.07	2 BAD	✓ DH_EX2/1		ASSEMBL	LIBRARY	
BEB	Shower	3.88	0 BAD	AAA	6 Bed Ward	60.70	6 BAD	DH_EX2/1				
BEB	Shower	3.86	0 BAD	AAA	6 Bed Ward	60.57	6 BAD	DH_EX2/1			de Assembly Name	Assembly Description
BEB	En-Suite	1.82	0 BAD	AAA	6 Bed Ward	60.70	6 BAD	✓ DH_EX2/1		CLINIC_1	Small Clinic	3 consulting room clinic (Gamopedi)
BEB	Shower	3.86	0 BAD	AAA	6 Bed Ward	56.61	6 BAD	✓ DH_EX2/1		0.000	IPLE CLINIC_EXAMPLE	Imported from comma delimited file
BEB	wc	1.92	0 BAD	AAA	6 Bed Ward	63.57	6 BAD	✓ DH_EX2/1		DH_EX1	Disrict Hospital	277 bed District Hospital example (Khayelits
BEB	Shower	4.12	0 BAD	AAA	2 Bed Ward	24.19	2 BAD	✓ DH_EX2/1		DH_EX2	District Hospital	277 bed District Hospital example (Structure
BEB	wc	1.82	0 BAD	AAA	2 Bed Ward	24.33	2 BAD	<ul> <li>DH_EX2/1</li> </ul>		H2	Natalspruit	760 bed hospital (Natalspruit in Vosloorus)
BEB	En-Suite	1.81	0 BAD	AAA	2 Bed Ward	24.07	2 BAD	DH_EX2/1		MED_W_D	Medical Ward Type 1	32 bed hypothetical Medical Ward Layout, cr
BEB	En-Suite	1.83	0 BAD	AAA	6 Bed Ward	68.46	6 BAD	✓ DH_EX2/1		NDOH	NDoH Mental Health	72 bed mental health ward ranging from 1 to
BEB	Ass. Bath	16.90	0 BAD	AAA	6 Bed Ward	69.36	6 BAD	DH_EX2/1		_		
BEB	WC	1.91	0 BAD	AAG	Nurses Station	9.06	BAD	MDH_EX2/1				
BEB	En-Suite	1.83	0 BAD	AAG	Nurses Station	9.06	BAD	<ul> <li>DH_EX2/1</li> </ul>				
BEB	Shower	3.90	0 BAD	AIA	TREATMENT	18.80	BAD	DH_EX2/1				
BEB	Ass. Shower	7.16	0 BAD	AIA	TREATMENT	18.80	BAD	DH_EX2/1				
BEB	En-Suite	1.83	0 BAD	AJA	Treatment	18.47	BAD	✓ DH_EX2/1				
BEB	Shower	3.65	0 BAD	AJA	Treatment	18.47	BAD	✓ DH_EX2/1				
BEB	wc	1.74	0 BAD	BC	DOCTORS OFFICE	8.67	BAD	DH_EX2/1				
BEB	En-Suite	1.78	0 BAD	BC	SISITERS OFFICE	9.17	BAD	✓ DH_EX2/1				
BEB	wc	1.92	0 BAD	BC	SISTERS OFFICE	9.20	BAD	✓ DH_EX2/1				
BEB	En-Suite	1.83	0 BAD	BC	DOCTORS OFFICE	8.21	BAD	<ul> <li>DH_EX2/1</li> </ul>				
BEB	Shower	3.88	0 BAD	BCA	Doctor s Office	8.12	BAD	<ul> <li>DH_EX2/1</li> </ul>				
BEB	En-Suite	1.82	0 BAD	BCA	Doctor s Office	8.12	BAD	DH_EX2/1				
BEB	Shower	3.85	0 BAD	BCA	Sister s Office	9.00	BAD	DH_EX2/1	*			
				4	101		_	•		4		

Figure 9: The FAST DESIGN COMPARATOR allows convenient comparison between two designs

To open the DESIGN COMPARATOR **Drag** from object at 1 and **Drop** on action at position 2. If there was already a design in the comparator it will open the DESIGN COMPARATOR panel and display the data. If you want to display a different design, **Drag** from action at 3 and **Drop** on object at position 4. To retrieve any design from the design repository follow the method illustrated in Figure 9. A list of designs that is currently available in the design repository will appear in a block with a red border. **Drag** from object at 5 and **Drop** on object at position 6. The design selected will now appear in the DESIGN COMPARATOR.



ESIGN COM	PARATOR	DESIG	IN ASSEMBLY					R	OOM DETA	AIL LIBRARY			
ode 64	Facility Name	Class	Space Use	Area m2 No. Be		Assembly Code	1 6	- 0	lass Space	e Use	Area (	n2) Description	1
1_EX2	277 bed district hospital. (Khayelitsha	1	Protection of the local data	Person	÷				WOR	IK SPACE	T	WORK SPACE	-1
002	Blue Mountain Memorial Hospital	AAA	6 Bed Ward	60.41	6 BAD	DH_EX2/1			A PATI	ENT ROOM		WORK SPACE: PATIENT ROOM	N
001	Blue Mountain Memorial Hospital (Ve	AAA	6 Bed Ward	62.93	6 BAD	V DH_EX2/1	_	A	AA Wan	đ		WORK SPACE: PATIENT ROOM	M:
1003	Blue Mountain Memorial Hospital (Ve	AAA	1 Bed Ward	17.67	1 BAD	DH_EX2/1			AAA 1 Be	d Unit Excl Ensuite	14.	45 WORK SPACE: PATIENT ROOM	N:
0004	Blue Mountain Memorial Hospital (Ve	AAA	1 Bed Ward	16.75	1 BAD	DH_EX2/1		- A	AAB 2 Be	d Unit Excl Ensuite	23	83 WORK SPACE: PATIENT ROOM	N:
H_EX	Example of a 200 bed district hospital	AAA	1 Bed Ward	17.67	1 BAD	DH_EX2/1		A	AAC 3 Be	d Unit Excl Ensuite	34	02 WORK SPACE: PATIENT ROOM	M:
ED_WARD_D	Experimental Medical Ward layout to +	AAA	6 Bed Ward	62.93	6 BAD	<ul> <li>DH_EX2/1</li> </ul>	-	A	AAD 4 Be	d Unit Excl Ensuite	4:	21 WORK SPACE: PATIENT ROOM	M:
ED_WARD_2	Experimental medical ward layout type	AAA	6 Bed Ward	56.61	6 BAD	DH_EX2/1		A	AAF 6 Be	d Unit Excl Ensuite	60	39 WORK SPACE: PATIENT ROOM	M:
ED_NDOH	Experimental medical ward layout.	AAA	6 Bed Ward	60.41	6 BAD	DH_EX2/1		A	AB Mate	ernity Wards		WORK SPACE: PATIENT ROOM	N:
ED_WARD_1	Experimental Medical Ward layout. Cre	AAA	1 Bed Ward	16.75	1 BAD	✓ DH_EX2/1		A	AC Critic	cal Care & Special Units		WORK SPACE: PATIENT ROOM	M:
ED_WARD_3	Experimental medical ward layout. Lay	AAA	2 Bed Ward	24.19	2 BAD	DH_EX2/1			AD Men	tal Health Wards		WORK PLACE: PATIENT ROOM	1:1
HEATRE_1	Operating Theatre layout.	AAA	6 Bed Ward	68.46	6 BAD	✓ DH_EX2/1			ADA 18e	d Unit Ensuite	1	75 WORK PLACE: PATIENT ROOM	N:1
inic	Small 3 consulting room clinic (Gamor	AAA	6 Bed Ward	60.57	6 BAD	✓ DH_EX2/1	0		ADB 2 Be	d Unit Ensuite	9	75 WORK PLACE: PATIENT ROOM	1:1
		AAA	2 Bed Ward	24.47	2 BAD	DH_EX2/1		A	ADC 3 Be	d Unit Ensuite	33	39 WORK PLACE: PATIENT ROOM	N:1
		AAA	6 Bed Ward	69.36	6 BAD	DH_EX2/1			ADD 4 Be	d Unit Ensuite	4	47 WORK PLACE: PATIENT ROOM	N:1
		AAA	2 Bed Ward	24.33	2 BAD	DH_EX2/1	田田	A	ADE 5 Be	d Unit Ensuite	57	02 WORK PLACE: PATIENT ROOM	1.1
		AAA	2 Bed Ward	17.67	2 BAD	DH_EX2/1	1	2 A	ADF 6 Be	d Unit Ensuite		88 WORK PLACE: PATIENT ROOM	data (
		AAA	2 Bed Ward	24.47	2 BAD	DH_EX2/1		A	ADG Psych	hiatric Disabled Ensuite Patie		88 WORK PLACE: PATIENT ROOM	
		AAA	2 Bed Ward	17.04	2 BAD	DH_EX2/1				hiatric Ensuite		88 WORK PLACE: PATIENT ROOM	-
		AAA	6 Bed Ward	63.57	6 BAD	<ul> <li>DH_EX2/1</li> </ul>	6	2		II			•
		AAA	2 Bed Ward	24.07	2 BAD	DH_EX2/1							
		AAA	6 Bed Ward	60.70	6 BAD	DH_EX2/1		A	SSEMBLY L	IBRARY			
		AAA	6 Bed Ward	60.57	6 BAD	DH_EX2/1		A	ssembly Code	Assembly Name	Assembly	Description	
		AAA	6 Bed Ward	60.70	6 BAD	✓ DH_EX2/1		C	LINIC_1	Small Clinic	3 consult	ng room clinic (Gamopedi)	
		AAA	6 Bed Ward	56.61	6 BAD	DH_EX2/1		C	LINIC_EXAMPL	E CLINIC_EXAMPLE	Imported	from comma delimited file	_
		AAA	6 Bed Ward	63.57	6 BAD	DH_EX2/1		D	H_EX1	Disrict Hospital	277 bed 0	istrict Hospital example (Khay	elits
		AAA	2 Bed Ward	24.19	2 BAD	✓ DH_EX2/1		D	H_EX2	District Hospital	277 bed 0	istrict Hospital example (Struc	ture
		AAA	2 Bed Ward	24.33	2 BAD	DH_EX2/1		H	2	Natalspruit	760 bed h	ospital (Natalspruit in Vosloo	rus)
		AAA	2 Bed Ward	24.07	2 BAD	DH_EX2/1		M	ED_W_D	Medical Ward Type 1	32 bed hy	oothetical Medical Ward Layou	Jt, cr
		AAA	6 Bed Ward	68.46	6 BAD	✓ DH_EX2/1		N	DOH	NDoH Mental Health	72 bed m	ental health ward ranging from	1 1 to
		AAA	6 Bed Ward	69.36	6 BAD	V DH_EX2/1		1					_
		AAG	Nurses Station	9.06	BAD	DH_EX2/1		-		01	ALC: N		
		AAG	Nurses Station	9.06	BAD	DH_EX2/1							
		ALA	TREATMENT	18.80	BAD	<ul> <li>DH_EX2/1</li> </ul>							
		ALA	TREATMENT	18.80	BAD	DH_EX2/1							
		ALA	Treatment	18.47	BAD	V DH_EX2/1							
		AIA	Treatment	18.47	BAD	DH_EX2/1							
		BC	DOCTORS OFFICE	8.67	BAD	✓ DH_EX2/1							
		BC	SISITERS OFFICE	9.17	BAD	✓ DH EX2/1							
		BC	SISTERS OFFICE	9.20	BAD	✓ DH EX2/1							
		BC	DOCTORS OFFICE	8.21	BAD	<ul> <li>DH_EX2/1</li> </ul>							
		BCA	Doctor s Office	8.12	BAD	<ul> <li>DH_EX2/1</li> </ul>							
		BCA	Doctor s Office	8.12	BAD	<ul> <li>DH_EX2/1</li> </ul>							
		BCA	Sister s Office	9.00	BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>							
		4	of the second second	2.00	- Und	Contract a	*		<u></u>	144111	-		-



#### Create template design target

It is a rather difficult and tedious process to create design targets for health facilities, because a designer cannot simultaneously think of all aspects that need to be considered in this complex environment. In recognition of this a special action has been introduced to quickly and accurately build a template target. Once this has been done the user can modify it to suit the specific requirements of a design.

The first step is to create a design assembly that most closely matches what the design team thinks is the best solution for a particular size health facility. It could be based on a known existing hospital, if you have the detail available, or you can build it from assemblies in the ASSEMBLY LIBRARY, or you could even go to the effort of starting completely from scratch.

Once you are satisfied with the design in the DESIGN ASSEMBLY you can **Drag** from position 1 and **Drop** at position 2. Behind the scenes a rather complex series of calculations takes place to create a template target. The number of functional planning units per department, as well as an area range is calculated. *FAST* calculates the actual m<sup>2</sup> per planning unit, per department and then adds 5% above and below this figure to create a 10% target range. Once this has been done the user can inspect the results and make finer adjustments where necessary to complete the target.



ass Functional Planning Unit No. Of Min. Max.	Class	Space Use	Area m2	No. Beds/ De	pt. Assembly Code	* [m	Class Spar	e Use	Area (m2) Description
FPU's Area Area		1		Persons		î 🗑		RK SPACE	WORK SPACE
(mz) (mz)	AAA	2 Bed Ward	27.36	2 BA	D MED_W_D/1			ENT ROOM	WORK SPACE: PATIENT ROOM
edical Ward T 32 351.16 388.12	AAA	2 Bed Ward	27.27	2 BA	D V MED_W_D/1		AAA Wat		WORK SPACE: PATIENT ROOM:
AD work space: beds A 32 369.64	AAA	2 Bed Ward	27.13	2 BA	D V MED_W_D/1		House House	d Unit Excl Ensuite	14.145 WORK SPACE: PATIENT ROOM:
T 0 0.00 0.00 A 0 0.00	AAA	4 Bed Ward	40.67	4 BA	D V MED_W_D/1			d Unit Excl Ensuite	25.83 WORK SPACE: PATIENT ROOM:
A 0 0.00	AAA	4 Bed Ward	40,74	4 BA	D V MED_W_D/1			d Unit Excl Ensuite	34.02 WORK SPACE: PATIENT ROOM:
	AAA	4 Bed Ward	40.71	4 8A	D V MED_W_D/1			d Unit Excl Ensuite	42.21 WORK SPACE: PATIENT ROOM:
	AAA	4 Bed Ward	40.74	BA	D V MED_W_D/1			d Unit Excl Ensuite	60.39 WORK SPACE: PATIENT ROOM:
	AAA	4 Bed Ward	40.67	4 B	MED_W_D/1			ernity Wards	WORK SPACE: PATIENT ROOM:
	AAA	1 Bed Ward	21.71	1 BA	D MED_W_D/1			cal Care & Special Units	WORK SPACE: PATIENT ROOM:
	AAA	1 Bed Ward	21.73	1 BA	D MED_W_D/1			tal Health Wards	WORK PLACE: PATIENT ROOM: I
	AAA	4 Bed Ward	40.71	4 8A	D VIED_W_D/1			d Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
	AFA	Consulting Rm	11.44	0 BA	D V Mcg_W_D/1			d Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
	AJA	Treatment Room	15.71	0 8A	D MED_V_D/1			d Unit Ensuite	33.39 WORK PLACE: PATIENT ROOM: I
	BAA	Nurse s Station	26.55	0 8A	D V MED_W_V1			d Unit Ensuite	43.47 WORK PLACE: PATIENT ROOM: I
	BCA	Ward Office	10.82	0 BA	D V MED_W_D/1	Have		d Unit Ensuite	57.02 WORK PLACE: PATIENT ROOM: I
	BEB	En-Suite	1.83	0 BA	D V MED_W_D/1			d Unit Ensuite	67.88 WORK PLACE: PATIENT ROOM: I
	BEB	En-suite	3.88	0 BA	D V MED_W_D/1				
	BEB	Shower	3.86	0 BA	D V MED_W_D/1		Contraction of Contraction	hiatric Disabled Ensuite Patient R	
	BEB	wc	1.92	0 BA			AADH Psvc	hiatric Ensuite	67.88 WORK PLACE: PATIENT ROOM: I
	BEB	En-Suite	1.83	0 84	D V MED_W_D/1		-		
	BEB	Shower	3.86	0 BA			ASSEMBLY	LIBRARY	
	BEB	wc	1.92	OBA	D V MED_W_D/1	-	Assembly Code	Assembly Name	Assembly Description
	BEB	WC	1.91	0 BA	D V MED_W_D/1	-	CLINIC 1	Small Clinic	3 consulting room clinic (Gamopedi)
	BEB	Shower	3.88	0 84	D V MED_W_D/1		CLINIC EXAMPL	E CLINIC EXAMPLE	Imported from comma delimited file
	BEB	wc	1.91	0 BA			DH_EX1	the second s	277 bed District Hospital example (Khavelit
	BEB	En-Suite	1.82	0 BA	D V MED_W_D/1		DH_EX2	District Hospital	277 bed District Hospital example (Structure
	BEB	Shower	3.85				H2	Natalspruit	760 bed hospital (Natalspruit)
	BEB	wc	1.91	0 BA			MED_W_D	Medical Ward Type 1	32 bed hypothetical Medical Ward Layout, c
	BEB	En-Suite	1.83	1	Texas		NDOH		72 bed mental health ward ranging from 1 t
	BEB	Ass. Bath	16.90	()		-			
	BEB	En-suite	3.87			-			
	BEB	Shower	3.88	0		- 1			
	BEB	Ass. Shower	7.16						
	BEB	wc	1.91	1		-			
	BEB	En-Suite	1.82	1	and the second se				
	BEB	Shower	4.12	N					
	BEB	wc	1.82	R					
	BEB	En-Suite	1.83	1 Contractor					
	BEB	Shower	3.90	1	The second second second second second				
	BEB	En-Suite	1.83	11	Concession of Co	-			
	-		3	A		-			
	BEB	Shower	3.65						
	BEB	wc	1.74	R					
	BEB	En-Suite	1.78	0 BA	D V MED_W_D/1	-			
	4						4		

Figure 11: Create a new functional unit design target from a design assembly. (Drag from 1 and Drop at position 2)

#### **Delete actions**

Due to the large number of rooms that define a large health facility a hierarchy of delete actions has been introduced in *FAST* to make the system as efficient as possible. On the space assembly dashboard, six possible delete actions exist:

- Delete a specific room (Figure 12)
- Delete specific design assembly (Figure 13)
- Delete entire design assembly (Figure 14)
- Delete (hide) design comparator (Figure 15)
- Delete assembly library item (Figure 16)
- Delete the entire project from the design repository (Figure 17 and 18).



FUNCTIONAL UNIT DESIGN T	ARGEI		DESI	GN ASSEMBLY				1	ROOM	DETAIL LIBRARY	
Class Functional Planning Unit	No. Of FPU's	Min. Max. Area Area	Class	Space Use	Area m2	No. Beds/ Dept. Persons	Assembly Code	1 100	Class	Space Use	Area (m2) Description
Planning Units	FPU'S	(m2) (m2)	D	Structure	128.34	BAA	✓ DH EX2/1		A	WORK SPACE	WORK SPACE
OUTPATIENT UNIT	T 8	118.27 130.71		6 Bed Ward	62.93	6 BAD	✓ DH_EX2/1	1	AA	PATIENT ROOM	WORK SPACE: PATIENT ROOM
	A 8	124.49	AAA	2 Bed Ward	24.19		OH EX2/1		AAA	Ward	WORK SPACE: PATIENT ROOM:
	T 2	22.82 25.22	AAA			2 6AU	Carl Without a second second	1000	AAAA	1 Bed Unit Excl Ensuite	14.145 WORK SPACE: PATIENT ROOM:
ABA work space: consulting	A 2	24.02	and a second second	6 Bed Ward	56.61	class	✓ DH_EX2/1	1	AAAB	2 Bed Unit Excl Ensuite	25.83 WORK SPACE: PATIENT ROOM:
Emergency Unit	т 3	40.03 44.25	AAA	6 Bed Ward	69.36		<ul> <li>DH_EX2/1</li> </ul>		AAAC	3 Bed Unit Excl Ensuite	34.02 WORK SPACE: PATIENT ROOM:
ABA work space: counselling	A 3	42.14	AAA	1 Bed Ward	07	1 8AD	✓ DH_EX2/1		AAAD	4 Bed Unit Excl Ensuite	42.21 WORK SPACE: PATIENT ROOM:
Day/ Overnight	T 2	40.11 44.33	AAA	2 Bed Ward	17.04		✓ DH_EX2/1		AAAF	6 Bed Unit Excl Ensuite	60.39 WORK SPACE: PATIENT ROOM:
BAA work space:	A 2	42.22	AAA	2 Bed Ward	17.67	2 8AD	✓ DH_EX2/1		AAB	Maternity Wards	WORK SPACE: PATIENT ROOM:
	T 10	225.71 249.47		2 Ber ward	24.07	2 BAD	✓ DH_EX2/1		AAC	Critical Care & Special Units	WORK SPACE: PATIENT ROOM:
	A 10	237.59	AAA	6 Bed Ward	60.41		DH_EX2/1		AAD	Mental Health Wards	WORK PLACE: PATIENT ROOM: I
	T 2	23.90 26.42	AAA	1 Bed Ward	17.67	1 8AD	✓ DH_EX2/1		AADA	1 Bed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
	A 2	25.16	AAA	2 Bed Ward	24.33		✓ DH_EX2/1		AADB	2 Bed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
	T 7	1.60 1.76	AAA	6 Bed Ward	60.57	6 BAD	DH_EX2/1		AADC	3 Bed Unit Ensuite	33.39 WORK PLACE: PATIENT ROOM: I
	A 7	1.68	AAA	6 Bed Ward	63.57	6 8AD	DH_EX2/1		AADD	4 Bed Unit Ensuite	43.47 WORK PLACE: PATIENT ROOM: I
	T 1 A 1	17.32 19.14 18.23	AAA	1 Bed Ward	16.75	1 BAD	✓ DH_EX2/1		AADE	5 Bed Unit Ensuite	57.02 WORK PLACE: PATIENT ROOM: I
	T 120		AAA	6 Bed Ward	68.46		✓ DH_EX2/1	2	AADE	6 Bed Unit Ensuite	67.88 WORK PLACE: PATIENT ROOM: I
	A 120	1254.96 1387.0 1321.01	AAA	6 Bed Ward	63.57	6 8AD	DH_EX2/1			Psychiatric Disabled Ensuite Patie	
	T 32	289.20 319.64	AAA	6 Bed Ward	FAST OI	estion				Psychiatric Ensuite	67.88 WORK PLACE: PATIENT ROOM: 1
	A 32	304.42	AAA	2 Bed Ward					4	0	•
	T 70	886.45 979.77	AAA	6 Bed Ward	2	Are you sure that	t you want to delete roo	m 'AAA' ?			
	A 70	933.11	AAA	2 Bed Ward	4				ASSEME	LY LIBRARY	
Diagnostic Radiology	т з	60.22 66.56	AAA	6 Bed Ward		-			Assembly	Code Assembly Name	Assembly Description
	A 3	63.39	AAA	2 Bed Ward		OK	Cancel		CLINIC_1	Small Clinic	3 consulting room clinic (Gamopedi)
OPERATING THEATRES	T 4	164.25 181.53	AAA	6 Bed Ward	69.36	6 8AD	✓ DH_EX2/1		CLINIC_EX	AMPLE CLINIC_EXAMPLE	Imported from comma delimited file
CB work space: theatre	A 4	172.89	AAA	6 Bed Ward	60.70	6 8AD	✓ DH_EX2/1		DH EX1	Disrict Hospital 2	277 bed District Hospital example (Khayelits
STERILE SUPPLY UNIT	T 1	24.45 27.03	AAA	6 Bed Ward	60.41	6 8AD	✓ DH_EX2/1		DH_EX2	District Hospital	277 bed District Hospital example (Structure
CD core:	A 1	25.74	AAA	2 Bed Ward	24.47	2 BAD	✓ DH_EX2/1		H2	Natalspruit	760 bed hospital (Natalspruit)
	T O	0.00 0.00	AAA	2 Bed Ward	24.33	2 8AD	✓ DH_EX2/1		MED_W_D	Medical Ward Type 1	32 bed hypothetical Medical Ward Layout, cro
	A 0	0.00	AAA	1 Bed Ward	16.75	1 8AD	✓ DH EX2/1		NDOH	NDoH Mental Health	72 bed mental health ward ranging from 1 to
			AAA	6 Bed Ward	60.70		✓ DH_EX2/1				
			AAA	6 Bed Ward	68.46	6 BAD	DH_EX2/1		-		
			AAG	Nurses Station	9.06	BAD	DH_EX2/1				
			AAG	Nurses Station	9.06		✓ DH EX2/1				
			AJA	TREATMENT	18.80		<ul> <li>DH_EX2/1</li> </ul>				
			ALA	TREATMENT	18.80		✓ DH_EX2/1				
			AJA	Treatment	18.47	BAD	OH_EX2/1				
			ALA	Treatment	18.47	BAD	✓ DH_EX2/1				
					9.20						
			100			DAU	DH_EX2/1				
			BC	SISTERS OFFICE	0.17	0.00	DIL FURIS				
			BC	SISITERS OFFICE	9.17	BAD	✓ DH_EX2/1				
			BC BC	SISITERS OFFICE	8.21	BAD	✓ DH_EX2/1				
			BC BC BC	SISITERS OFFICE DOCTORS OFFICE DOCTORS OFFICE	8.21 8.67	BAD BAD	✓ DH_EX2/1 ✓ DH_EX2/1				
			BC BC BC BCA	SISITERS OFFICE DOCTORS OFFICE DOCTORS OFFICE DOCTORS OFFICE	8.21 8.67 8.12	BAD BAD BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>				
			BC BC BC	SISITERS OFFICE DOCTORS OFFICE DOCTORS OFFICE	8.21 8.67	BAD BAD BAD	✓ DH_EX2/1 ✓ DH_EX2/1	-			

Figure 12: Delete a specific room from the DESIGN ASSEMBLY (Step 1 and 2) (Drag from 1 and Drop at 2)

FUNCTIONAL UNIT DESIGN TA	ARGET		DESI	GN ASSEMBLY					ROOM	DETAIL LIBRARY		
Class Functional Planning Unit	No. Of	Min. Max.	Class	Space Use	Area m2 No. Beds,	/ Dept.	Assembly Code	[ [ [ ] ]	Class	Space Use	Area (n	2) Description
Planning Units	FPU's	Area Area (m2) (m2)			Persons				A	WORK SPACE		WORK SPACE
JTPATIENT UNIT		118.27 130.71	BI	Clean Utility		0 BAD	MED_W_D/1	42	AA	PATIENT ROOM		WORK SPACE: PATIENT ROOM
JTPATIENT UNIT		0.00	BKK	Patient Lounge	N	0 BAD	MED_W_D/1	4/	AAA	Ward		WORK SPACE: PATIENT ROOM:
		22.82 25.22	BKN	Staff Tea Room	17.25	0 BAD	MED_W_D/1		AAAA	1 Bed Unit Excl Ensuite	14.3	45 WORK SPACE: PATIENT ROOM:
BA work space: consulting		0.00	BMD	Dirty Utility	11.09	0 BAD	MED_W_D/1		AAAB	2 Bed Unit Excl Ensuite	25	83 WORK SPACE: PATIENT ROOM:
nergency Unit		40.03 44.25	BMF	Sluice	11.23	0 BAD	MED_W_D/1		AAAC	3 Bed Unit Excl Ensuite		02 WORK SPACE: PATIENT ROOM:
BA work space: counselling		0.00	BOA	I.T. Store	3.02	0 BAD	MED_W_D/1		AAAD	4 Bed Unit Excl Ensuite		21 WORK SPACE: PATIENT ROOM:
av/ Overnight		40.11 44.33	BQA	Ward Kitchen	9.70	0 BAD	MED_W_D/1		AAAF	6 Bed Unit Excl Ensuite		39 WORK SPACE: PATIENT ROOM:
A work space:		0.00	BSH	Clean Linen	9.44	0 BAD	MED_W_D/1				00	
av/ Overnight		225.71 249.47	CAAG	Passage	189.72	0 BAD	✓ MED_W_D/1		AAB	Maternity Wards		WORK SPACE: PATIENT ROOM:
A work space: beds		0.00	CBAB	Electrical DB	1.46	0 BAD	✓ MED_W_D/1		AAC	Critical Care & Special Units		WORK SPACE: PATIENT ROOM:
			CBAD	Duct		0 BAD	✓ MED_W_D/1		AAD	Mental Health Wards		WORK PLACE: PATIENT ROOM:
y/ Overnight 1 A work space: counselling A		23.90 26.42	CBAD	Duct		0 BAD	<ul> <li>MED_W_D/1</li> <li>MED_W_D/1</li> </ul>		AADA	1 Bed Unit Ensuite		75 WORK PLACE: PATIENT ROOM:
			and a subscription			-	The second se	1	AADB	2 Bed Unit Ensuite	9	75 WORK PLACE: PATIENT ROOM:
y/Overnight		1.60 1.76	CBAD	Duct	Constant Constant	0 BAD	MED_W_D/1		AADC	3 Bed Unit Ensuite	33.	39 WORK PLACE: PATIENT ROOM:
			CBAD	Duct	N	0 BAD	MED_W_D/1		AADD	4 Bed Unit Ensuite	43	47 WORK PLACE: PATIENT ROOM:
y/ Overnight			CBAD	Duct	1.42	0 BAD	MED_W_D/1		AADE	5 Bed Unit Ensuite	57	02 WORK PLACE: PATIENT ROOM:
		0.00	CBAD	Duct	1.44	0 BAD	MED_W_D/1		AADF	6 Bed Unit Ensuite		88 WORK PLACE: PATIENT ROOM:
edical Ward		1254.96 1387.06	CBAD	Duct	0.27	0 BAD	MED_W_D/1		AADG	Psychiatric Disabled Ensuite Patien		88 WORK PLACE: PATIENT ROOM:
D work space: beds		739.28	CBAD	Duct	1.34	0 BAD	MED_W_D/					
ediatrics Ward		289.20 319.64	CBAD	Duct	0.27	0 BAD	MED_W_D		AADH	Psychiatric Ensuite	5/	88 WORK PLACE: PATIENT ROOM:
G work space: beds		0.00	CBAG	EHR		0 BAD	MED W D 1					
ugical	C	886.45 979.77	DA	Walls		0 BAD	MEDEW /1		ASSEM	BLY LIBRARY		
AN work space: beds		0.00	AAA	2 Bed Ward		2 8AD	✓ MED W D/2		Arrambhu	Code Assembly Name	Assembly I	hererintion
iagnostic Radiology 📃 1		60.22 66.56	AAA	2 Bed Ward		2 BAD						
IA work space:		0.00				2 840	MED_W_D/2		CLINIC_1	Small Clinic		ng room clinic (Gamopedi)
PERATING THEATRES		164.25 181.53	AAA	2 Bed Ward	a second	209.413	WILMON W 1973		- Contraction of the local division of the l	KAMPLE CLINIC_EXAMPLE		from comma delimited file
work space: theatre		0.00	AAA	H DEO I	ion				DH_EX1	Disrict Hospital 2	277 bed D	strict Hospital example (Khayel
TERILE SUPPLY UNIT		24.45 27.03	AAA	4 Bed V					DH_EX2	District Hospital	277 bed D	strict Hospital example (Structu
D core:		0.00	AAA	4 Bed V An	e you sure that you wan	t to delete	e all rooms of assembly 'ME	D_W_D/2' ?	H2	Natalspruit	760 bed h	ospital (Natalspruit)
		0.00 0.00	AAA	4 Bed V					MED_W_	D Medical Ward Type 1	32 bed hyp	othetical Medical Ward Layout,
4	0	0.00	AAA	4 Bed V	OK		Cancel		NDOH	NDoH Mental Health	72 bed me	ntal health ward ranging from 1
			AAA	1 Bed V								
			AAA	1 Bed Ward	21.73	1 BAD	MED_W_D/2		1			
			AAA	4 Bed Ward		4 BAD	MED W D/2					
			AFA	Consulting Rm		OBAD	<ul> <li>MED_W_D/2</li> </ul>					
			AJA									
				Treatment Room		0 BAD	MED_W_D/2					
			BAA	Nurse s Station		0 BAD	MED_W_D/2					
			BCA	Ward Office	10.82	0 BAD	MED_W_D/2					
			BEB	En-Suite	1.78	0 BAD	MED_W_D/2					
			BEB	Shower	4.12	0 BAD	MED_W_D/2					
			BEB	wc	1.91	0 BAD	MED_W_D/2					
			BEB	Ass. Bath	16.90	0 BAD	MED_W_D/2					
			868	En-Suite	- N	OBAD	✓ MED W D/2					
			BEB	WC		OBAD	✓ MED_W_D/2					
			Address and a			1000						
			BEB	Shower	3.86	0 BAD	MED_W_D/2		1		_	

Figure 13: Delete specific design assembly (Step 1 and 2) (Drag from 1 and Drop at 2)



INFRASTRUCTURE UNIT SUPPORT SYSTEMS (IUSS) PROJECT Health Facility Guides: 10 September 2014 Facility Assembly Schedule Toolkit briefing tool (FAST) [PROPOSAL V.3]

FUNCTIONAL UNIT DESIGN TA	RGET		1	DESIG	IN ASSEMBLY					ROOM D	TAIL LIBRARY	
Class Functional Planning Unit	No. Of			Class	Space Use	Area m2 No. B		Assembly Code	6	Class 5	pace Use	Area (m2) Description
Planning Units	FPU's		m2)			Perso				A	/ORK SPACE	WORK SPACE
ITPATIENT UNIT	8	118.27 1		AAA	8 Bed Ward (Day Wai	116.84	8 AA	✓ DH_EX2/1		AA F	ATIENT ROOM	WORK SPACE: PATIENT ROOM
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nergency Unit		22.82 2	E an 1	AFA	COUNSEL / CONSULT F	11.69	AA	DH_EX2/1		AAAA 1	Bed Unit Excl Ensuite	14.145 WORK SPACE: PATIENT ROOM:
BA work space: consulting A		24.02	1	AFA	COUNSEL / CONSULT F	11.62	AA	✓ DH_EX2/1		AAAB 2	Bed Unit Excl Ensuite	25.83 WORK SPACE: PATIENT ROOM:
mergency Unit	3	40.03 4	4 25	AFA	COUNSEL / CONSULT F	11.69	AA	DH_EX2/1		AAAC 3	Bed Unit Excl Ensuite	34.02 WORK SPACE: PATIENT ROOM:
BA work space: counselling A		42.14	1	AFA	COUNSEL / CONSULT F	11.62	AA	DH_EX2/1		AAAD 4	Bed Unit Excl Ensuite	42.21 WORK SPACE: PATIENT ROOM:
ay/ Overnight	2	40.11 4	4.33	AFA	COUNSEL / CONSULT F	11.57	AA	<ul> <li>DH_EX2/1</li> </ul>		AAAF 6	Bed Unit Excl Ensuite	60.39 WORK SPACE; PATIENT ROOM:
AA work space: A	2	42.22	9	AFA	COUNSEL / CONSULT F	11.61	AA	<ul> <li>DH_EX2/1</li> </ul>		AAB N	laternity Wards	WORK SPACE: PATIENT ROOM:
ay/ Overnight	10	225.71 24	12.4/	AFA	COUNSEL / CONSULT F	11.61	AA	<ul> <li>DH_EX2/1</li> </ul>		AAC	ritical Care & Special Units	WORK SPACE: PATIENT ROOM:
A work space: beds A	10	237.59	4	AFA	CONSULT	11.68	AA	DH_EX2/1		AAD N	ental Health Wards	WORK PLACE: PATIENT ROOM: I
sy/ Overnight 🗾 T		23.90 2		AFA	COUNSEL / CONSULT F	11.69	AA	<ul> <li>DH_EX2/1</li> </ul>		AADA 1	Bed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
A work space: counselling A		25.16	4	AFA	COUNSEL / CONSULT F	11.63	AA	OH_EX2/1		AADB 2	Bed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
sy/ Overnight T		1.60	L.76	AFA	COUNSEL / CONSULT F	11.69	AA	<ul> <li>DH_EX2/1</li> </ul>			Bed Unit Ensuite	33.39 WORK PLACE: PATIENT ROOM: I
VA core: plant A		1.68		AFA	COUNSEL / CONSULT F	11.65	AA	DH_EX2/1		-	Bed Unit Ensuite	43.47 WORK PLACE: PATIENT ROOM: I
ay/ Overnight		17.32 1		AFA	COUNSEL / CONSULT F	11.61	AA	DH_EX2/1	Eliza de		Bed Unit Ensuite	57.02 WORK PLACE: PATIENT ROOM: I
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NN     work space: beds     A       agnostic Radiology     T       JA     work space:     A       A     work space:     T       S     work space: theatre     A       ERILE SUPPLY UNIT     T     T       O     core:     A       T     T     T	70 3 4 4 4 4 1 1 1 0	933.11 60.22 6 63.39 164.25 10 172.85 24.45 2 25.74 0.00 0	6.56 31.53 7.03 3.00	AJA AJA AKJ AKP AAL BAA BC BC BC BC BC BC BC BC BEB BEB BEB BEB	TREATHEATT TREAT FROCED POR BOOM DETRICIAN NURSES STATION SISTER 2 DOCTOR SISTER 2 DOCTOR SISTER 2 AREA MANAGER MALE WC FEMALE WC WC DISABLO / BABY WC WC	16.31 14.87 11.28 8.70 10.87 11.61 9.057 11.61 9.057 3.43 3.43 2.08 3.43 2.08 2.86 2.86 2.86 2.208	OK           AA	Cencel  Cancel  Characle  Cancel  Characle  Ch		SSEMBL ssembly Co LINIC_1 CLINIC_EXAL DH_EX1 DH_EX2 H2 MED_W_D	de Assembly Name Small Clinic Disrict Hospital 2 District Hospital 2 Natalspruit Medical Ward Type 1	3 consulting room clinic (Gamopedi) Imported from comma delimited file 277 bed District Kospital example (Khayelit 277 bed District Kospital example (Structure 750 bed hospital (Natalspruit) 52 bed hypothetical Medical Ward Layout, c
AN work space: beds A lagnostic Radiology T AA work space: A A work space: A B work space: theatre A venue supply unit Core: A T	70 3 4 4 4 4 1 1 1 0	933.11 60.22 6 63.39 164.25 10 172.85 24.45 2 25.74 0.00 0	6.56 31.53 7.03 1.00	AJA AJA AKJ AKP AL BGA BGA BGC BGC BEB BEB BEB BEB BEB BEB BEB BEB BEB BE	REATINGED PROCEDURE POP Room DIETICIAN NURSES STATION SISTER 2 DOCTOR SISTER 3 DOCTOR AREA MANAGER MALE WC FEMALE WC VWC DISABLD J BABY WC UC DISABLD J BABY WC UC	16.31         14.67           11.28         8.70           10.87         11.28           8.70         10.61           9.05         11.61           9.05         3.43           3.43         3.44           2.08         2.33           3.05         3.43           2.08         2.68           2.01         4.71	OK           AA	Cancel Can		SSEMBL ssembly Co LINIC_1 CLINIC_EXAL DH_EX1 DH_EX2 H2 MED_W_D	de Assembly Name Small Clinic Disrict Hospital 2 District Hospital 2 Natalspruit Medical Ward Type 1	3 consulting room clinic (Gamopedi) Imported from comma delimited file 277 bed District Kospital example (Khayelit 277 bed District Kospital example (Structure 750 bed hospital (Natalspruit) 52 bed hypothetical Medical Ward Layout, c
AN work space: beds A Jagnostic Radiology T AA work space: A Work space: The ATRES T 8 work space: theatre A TERILE SUPPLY UNIT T D core: A T	70 3 4 4 4 4 1 1 1 0	933.11 60.22 6 63.39 164.25 11 172.85 24.45 2 25.74 0.00 0	6.56 31.53 2.00	AJA AJA AJA AKP AL BGA BGA BGC BGC BGC BEB BEB BEB BEB BEB BEB BEB BEB BEB BE	TREATHANT           TREAT FRACE           POREDUKE           POR BOOM           DETRICIAN           NURSES STATION           SISTER 1           DOCTOR           SISTER 1           AREA MANAGER           MALE WC           PEMALE WC           DOSABLD           DOSABL           DOSABL           VIC           DISABLED BABY           WC           VIC           NIC           VIC           NALE	16.31 14.47 11.28 8.70 10.87 11.65 3.43 2.08 3.343 2.08 3.305 3.43 2.08 3.43 2.08 3.305 3.43 2.08 3.43 2.08 3.43 2.286 2.01 4.271 2.211	OK           AA           AA	Cancel Ca		SSEMBL ssembly Co LINIC_1 CLINIC_EXAL DH_EX1 DH_EX2 H2 MED_W_D	de Assembly Name Small Clinic Disrict Hospital 2 District Hospital 2 Natalspruit Medical Ward Type 1	3 consulting room clinic (Gamopedi) Imported from comma delimited file 277 bed District Kospital example (Khayelit 277 bed District Kospital example (Structure 750 bed hospital (Natalspruit) 52 bed hypothetical Medical Ward Layout, c

Figure 14: Delete entire design assembly (Step 1 and 2) (Drag from 1 and Drop at 2)

LOIG	N COMPARATOR			DES	GN ASSEMBLY					ROOM DET	AIL LIBRARY	
lass	Space Use	Area m2 No. Be		Class	Space Use	Persons	is/ Dent.	Assembly Code		Class Spa	ce Use	Area (m2) Description
AA	6 Bed Ward	69.36	6 BAD	AAA	6 Bed Ward	62.93	6 BAD	✓ DH_EX2/1			RK SPACE	WORK SPACE
AA	6 Bed Ward	62.93	6 BAD	AAA	2 Bed Ward	24.07	2 BAD	✓ DH_EX2/1	19	Law Asia	IENT ROOM	WORK SPACE: PATIENT ROOM
AA	6 Bed Ward	56.61	6 BAD	AAA	2 Bed Ward	17.67	2 BAD	✓ DH EX2/1	-	AAA Wa	rd	WORK SPACE: PATIENT ROOM:
AA	2 Bed Ward	24.19	2 BAD	AAA	1 Bed Ward	17.67	1 BAD	<ul> <li>✓ DH_EX2/1</li> <li>✓ DH_EX2/1</li> </ul>		AAAA 18	ed Unit Excl Ensuite	14.145 WORK SPACE: PATIENT ROOM:
LAA	6 Bed Ward	56.61	6 BAD	AAA	6 Bed Ward	60.57	6 BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>		AAAB 2.B	ed Unit Excl Ensuite	25.83 WORK SPACE: PATIENT ROOM:
LAA	6 Bed Ward	60.41	6 BAD	AAA	6 Bed Ward	63.57	6 BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>		AAAC 3 B	ed Unit Excl Ensuite	34.02 WORK SPACE: PATIENT ROOM:
LAA	2 Bed Ward	24.47	2 BAD	AAA	2 Bed Ward	24.47	2 BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>		AAAD 48	ed Unit Excl Ensuite	42.21 WORK SPACE: PATIENT ROOM:
LAA	2 Bed Ward	24.47	2 BAD	AAA	2 Bed Ward	24.33	2 BAD			AAAF 6 B	ed Unit Excl Ensuite	60.39 WORK SPACE: PATIENT ROOM:
AA	6 Bed Ward	68.46	6 BAD	AAA	2 Bed Ward	24.33	2 BAD	✓ DH_EX2/1		AAB Ma	ternity Wards	WORK SPACE: PATIENT ROOM:
LAA	2 Bed Ward	24.07	2 BAD	AAA	6 Bed Ward	60.41	6 BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>		AAC Crit	ical Care & Special Units	WORK SPACE: PATIENT ROOM:
				-						AAD Me	ntal Health Wards	WORK PLACE: PATIENT ROOM: I
AA	1 Bed Ward	17.67	1 BAD	AAA	6 Bed Ward	69.36	6 BAD	V DH_EX2/1		AADA 18	ed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
AA	1 Bed Ward	16.75	1 BAD	AAA	6 Bed Ward	68.46	6 BAD	DH_EX2/1	0	AADB 28	ed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
IAA	2 Bed Ward	24.19	2 BAD	AAA	2 Bed Ward	24.47	2 BAD	DH_EX2/1		AADC 3 B	ed Unit Ensuite	33.39 WORK PLACE: PATIENT ROOM: I
AA	2 Bed Ward	24.07	2 BAD	AAA	6 Bed Ward	69.36	6 BAD	V DH_EX2/1		AADD 48	ed Unit Ensuite	43.47 WORK PLACE: PATIENT ROOM: I
AA	2 Bed Ward	24.47	2 BAD	AAA	1 Bed Ward	16.75	1 BAD	DH_EX2/1		AADE 58	ed Unit Ensuite	57.02 WORK PLACE: PATIENT ROOM: I
AA	6 Bed Ward	63.57	6 BAD	AAA	6 Bed Ward	60.70	6 BAD	DH_EX2/1		AADF 68	ed Unit Ensuite	67.88 WORK PLACE: PATIENT ROOM: I
AA	6 Bed Ward	62.93	6 BAD	AAA	1 Bed Ward	17.67	1 BAD	DH_EX2/1		AADG PSV	chiatric Disabled Ensuite Patient R	67.88 WORK PLACE: PATIENT ROOM: I
AA	2 Bed Ward	24.33	2 BAD	AAA	2 Bed Ward	24.07	2 BAD	OH_EX2/1		AADH Psy	chiatric Ensuite	67.88 WORK PLACE: PATIENT ROOM: 1
AA	6 Bed Ward	60.41	6 BAD	AAA	6 Bed Ward	60.41	6 BAD	<ul> <li>DH_EX2/1</li> </ul>		4	- 22	•
AA	6 Bed Ward	68.46	6 BAD	AAA	2 Bed Ward	24.19	2 BAD	<ul> <li>DH_EX2/1</li> </ul>	-			
AA	2 Bed Ward	17.67	2 BAD	AAA	6 Bed Ward	63.57	6 BAD	DH_EX2/1		ASSEMBLY	LIBRARY	
AA	1 Bed Ward	17.67	1 BAD	AAA	1 Bed Ward	16.75	1 BAD	DH_EX2/1		Assembly Code	Assembly Name	Assembly Description
AA	6 Bed Ward	69.36	6 BAD	AAA	2 Bed Ward	24.33	2 BAD	DH_EX2/1		CLINIC_1	Small Clinic	3 consulting room clinic (Gamopedi)
AA	1 Bed Ward	16.75	1 BAD	AAA	2 Bed Ward	17.04	2 BAD	DH_EX2/1		CLINIC_EXAMP	LE CLINIC_EXAMPLE	Imported from comma delimited file
AA	2 Bed Ward	17.04	2 BAD	AAA	6 Bed Ward	56.61	6 BAD	DH_EX2/1		DH_EX1	Disrict Hospital 2	277 bed District Hospital example (Khayelits
AA	6 Bed Ward	60.70	6 BAD	AAA	6 Bed Ward	60.70	6 BAD	DH_EX2/1		DH_EX2	District Hospital	277 bed District Hospital example (Structure
AA	6 Bed Ward	60.70	6 BAD	AAA	6 Bed Ward	62.93	6 BAD	DH_EX2/1		H2	Natalspruit	760 bed hospital (Natalspruit)
AA	6 Bed Ward	60.57	6 BAD	AAA	6 Bed Ward	56.61	6 BAD	DH_EX2/1		MED_W_D	Medical Ward Type 1	32 bed hypothetical Medical Ward Layout, cr
AA	6 Bed Ward	60.57	6 BAD	AAA	6 Bed Ward	60.57	6 BAD	DH_EX2/1		NDOH	NDoH Mental Health	72 bed mental health ward ranging from 1 to
AA	6 Bed Ward	63.57	6 BAD	AAA	6 Bed Ward	68.46	6 BAD	DH_EX2/1		-		
AG	Nurses Station	9.06	BAD	AAG	Nurses Station	9.06	BAD	DH_EX2/1		-	0	
AG	Nurses Station	9.06	BAD	AAG	Nurses Station	9.06	BAD	DH_EX2/1				
JA	Treatment	18.47	BAD	AJA	Treatment	18.47	BAD	DH_EX2/1				
AL	Treatment	18.47	BAD	AIA	Treatment	18.47	BAD	DH_EX2/1				
JA	TREATMENT	18.80	BAD	AIA	TREATMENT	18.80	BAD	✓ DH_EX2/1				
UA.	TREATMENT	18.80	BAD	ALA	TREATMENT	18.80	BAD	✓ DH_EX2/1				
IC	SISTERS OFFICE	9.20	BAD	BC	SISTERS OFFICE	9.20	BAD	✓ DH EX2/1				
IC I	DOCTORS OFFICE	8.67	BAD	BC	DOCTORS OFFICE	8.67	BAD	DH_EX2/1				
c	DOCTORS OFFICE	8.21	BAD	BC	SISITERS OFFICE	9.17	BAD	<ul> <li>DH_EX2/1</li> </ul>				
c	SISITERS OFFICE	9.17	BAD	BC	DOCTORS OFFICE	8.21	BAD	<ul> <li>DH_EX2/1</li> </ul>				
ICA	Sister's Office	9.00	BAD	BCA	Doctor s Office	8.12	BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>				
BCA	Doctor s Office	8.12	BAD	BCA	Doctor's Office	8.12	BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>				
BCA	Doctor's Office	8.12	BAD	BCA	Sister s Office	9.00	BAD	✓ DH_EX2/1 ✓ DH_EX2/1				
	Ductor's Unice	8.12	BAD	* DLA	pister's unice	9.00	BAD	- UH_EA2/1				
	100			4						4		

Figure 15: Delete design comparator (Step 1 and 2) (Drag from 1 and Drop at 2)



INFRASTRUCTURE UNIT SUPPORT SYSTEMS (IUSS) PROJECT Health Facility Guides: 10 September 2014 Facility Assembly Schedule Toolkit briefing tool (FAST) [PROPOSAL V.3]

FUNCTIONAL UNIT DESIGN TAI	INGET			DESI	GN ASSEMBLY					ROOM	DETAIL LIBRARY	
Class Functional Planning Unit	No. Of	Min.	Max.	Class	Space Use	Area m2 No. Bed		Assembly Code	1 3	Class	Space Use	Area (m2) Description
Planning Units	FPU's	Area (m2)	Area (m2)	AAA	le a suite s	Persons		V DH EX2/1	1	A	WORK SPACE	WORK SPACE
	8	118.27		AAA	6 Bed Ward	62.93	6 BAD	Contraction of the local design of the local d		AA	PATIENT ROOM	WORK SPACE: PATIENT ROOM
work space: beds A		124		AAA	2 Bed Ward	24.07		<ul> <li>DH_EX2/1</li> <li>DH EX2/1</li> </ul>	4	AAA	Ward	WORK SPACE: PATIENT ROOM:
mergency Unit		22.82	25.22	AAA	2 Bed Ward 1 Bed Ward	17.67	2 BAD	HARD CO.	100	AAAA	1 Bed Unit Excl Ensuite	14.145 WORK SPACE: PATIENT ROOM:
BA work space: consulting A		24.				17.67	1 8AD	<ul> <li>DH_EX2/1</li> </ul>	1000	AAAB	2 Bed Unit Excl Ensuite	25.83 WORK SPACE: PATIENT ROOM:
mergency Unit	3	40.03	44.25	AAA	6 Bed Ward	60.57	6 BAD	<ul> <li>DH_EX2/1</li> <li>DH_EX2/1</li> </ul>		AAAC	3 Bed Unit Excl Ensuite	34.02 WORK SPACE: PATIENT ROOM:
BA work space: counselling A	3	42.	14	AAA	6 Bed Ward	63.57	6 BAD	DH_EX2/1		AAAD	4 Bed Unit Excl Ensuite	42.21 WORK SPACE: PATIENT ROOM:
ay/ Overnight		40.11		AAA	2 Bed Ward	24.47	2 BAD	V DH_EX2/1		AAAF	6 Bed Unit Excl Ensuite	60.39 WORK SPACE: PATIENT ROOM:
AA work space: A		42.	Allower Private a	AAA	2 Bed Ward	24.33	2 BAD	V DH_EX2/1		AAB	Maternity Wards	WORK SPACE: PATIENT ROOM:
Nay/ Overnight		225.71		AAA	2 Bed Ward	24.19	2 BAD	✓ DH_EX2/1		AAC	Critical Care & Special Units	WORK SPACE: PATIENT ROOM:
AA work space: beds A		237	And Andrews	AAA	6 Bed Ward	60.41	6 BAD	DH_EX2/1		AAD	Mental Health Wards	WORK PLACE: PATIENT ROOM: I
ay/ Overnight T		23.90		AAA	6 Bed Ward	69.36	6 BAD	DH_EX2/1		AADA	1 Bed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
AA work space: counselling A		25.	10/20	AAA	6 Bed Ward	68.46	6 BAD	DH_EX2/1		ADB	2 Bed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
ay/ Overnight		1.60		AAA	2 Bed Ward	24.47	2 BAD	DH_EX2/1		ADC	3 Bed Unit Ensuite	33.39 WORK PLACE: PATIENT ROOM: I
AA core: plant A		1.0	Annual Concession	AAA	6 Bed Ward	69.36	6 BAD	DH_EX2/1		ADD	4 Bed Unit Ensuite	43.47 WORK PLACE: PATIENT ROOM: I
ay/ Overnight T AA core: waiting A		17.32		AAA	1 8ed Ward	16.75	1 BAD	DH_EX2/1		ADE	5 Bed Unit Ensuite	57.02 WORK PLACE: PATIENT ROOM: I
ledical Ward		1254.96		AAA	6 Bed Ward	60.70	6 BAD	<ul> <li>DH_EX2/1</li> </ul>		A. DF	6 Bed Unit Ensuite	67.88 WORK PLACE: PATIENT ROOM: I
AD work space: beds A		132		AAA	1 Bed Ward	17.67	1 BAD	<ul> <li>DH_EX2/1</li> </ul>		AADG	Psychiatric Disabled Ensuite Pati	ient R 67.88 WORK PLACE: PATIENT ROOM: I
ediatrics Ward		289.20		AAA	2 Bed W FAST Ques	tion				X	Psychiatric Ensuite	67.88 WORK PLACE: PATIENT ROOM: 1
				AAA	6 Bed W							
AG work space: beds A	32	304	42									
		304 886.45		AAA	2 8ed W ?) A	e you sure that you w	ant to dele	te assembly 'NDOH' that	contains 85 record	ds ?		
urgical T	70	304 886.45 933	979.77	444 444	2 Bed W	re you sure that you w	ant to dele	te assembly 'NDOH' that	contains 85 reco	ds?	BLY LIBRARY	
AN work space: beds	70 70	886.45	979.77 11	1000		_			contains 85 reco	55 EM	BLY LIBRARY Code Assembly Name	Assembly Description
angical T AN work space; beds A iagnostic Radiology T	70 70 3	886.45 933	979.77 11 66.56	AAA	6 Bed W	_	OK	Cancel	contains 85 reco	55 EM		Assembly Description 3 consulting room clinic (Gamopedi)
angical T AN work space: beds A liagnostic Radiology T AA work space: A	70 70 3 3	886.45 933 60.22	979.77 11 66.56 39	444 444	6 Bed W 1 Bed W	_			contains 85 reco	SS EM ser bly INIQ 1	Code Assembly Name	
Ingical T AN work space: beds A liagnostic Radiology T AA work space: A PERATING THEATRES T	70 70 3 3 4	886.45 933 60.22 63.	979.77 11 66.56 39 181.53	444 444 444	6 Bed W 1 Bed W 2 Bed W		ок	Cancel	contains 85 reco	SS EM ser bly INIQ 1	Code Assembly Name	3 consulting room clinic (Gamopedi) Imported from comma delimited file
argical T AN work space: beds A iagnostic Radiology T AA work space: A APERATING THEATRES T S work space: theatre A rERILE SUPPLY UNIT T	70 70 3 3 4 4 1	886.45 933 60.22 63. 164.25 172 24.45	979.77 11 66.56 39 181.53 89 27.03	AAA AAA AAA AAA	6 Bed W 1 Bed W 2 Bed W 2 Bed Ward	17.04	OK 2 BAD	Cancel	contains 85 recor	SSEM seriely INIG 1 CLINIC	Code Assembly Name Small Clinic KAMPLE CLINIC_EXAMPLE	3 consulting room clinic (Gamopedi) Imported from comma delimited file 277 bed District Hospital example (Khayelits
urgical     T       AN     work space: beds       kiagnostic Radiology     T       AN     work space:       AN     work space:       AN     work space: thestre       A     work space: thestre       A     Kork space: thestre       A     Work space: thestre       A     D       Core:     A	70 70 3 3 4 4 1 1 1	886.45 933 60.22 63. 164.25 172 24.45 25.	979.77 11 66.56 39 181.53 89 27.03 74	444 444 444 444 444	6 Bed W 1 Bed W 2 Bed W 2 Bed Ward 6 Bed Ward	17.04	OK 2 BAD 6 BAD	Cancel DH_EX2/1 DH_EX2/1	contains 85 recor	SSEM senibly INIG 1 CLINIC E DH_EX	Code Assembly Name Small Clinic KAMPLE CLINIC_EXAMPLE Disrict Hospital 2	3 consulting room clinic (Gamopedi) Imported from comma delimited file 277 bed District Hospital example (Khayelits
urgical T AN work space: beds A Assensit: Radiology A AA work space: A PERATING THEATRES A work space: theatre A work space: theatre A work space: theatre A core: A T	70 70 3 3 4 4 4 1 1 1 0	886.45 933 60.22 63. 164.25 172 24.45 25. 0.00	979.77 11 66.56 39 181.53 89 27.03 74 0.00	AAA AAA AAA AAA AAA AAA	6 Bed W 1 Bed W 2 Bed W 2 Bed Ward 6 Bed Ward 6 Bed Ward	17.04 56.61 60.70	OK 2 BAD 6 BAD 6 BAD	Cancel Cancel DH_EX2/1 DH_EX2/1 DH_EX2/1	contains 85 reco	SSEM sembly INIG 1 CLINICIE DH_EX1 DH_EX2	Code Assembly Name Small Clinic XAMPLE CLINIC_EXAMPLE Disrict Hospital 2 District Hospital	3 consulting room clinic (Gamopedi) Imported from comma delimited file 277 bed District Hospital example (Khayelits 277 bed District Hospital example (Structure 760 bed hospital (Natalspruit)
argical T AN work space; beds A iagnostic Radiology T A work space; A A work space; A A work space; A Wark space; A A work space; C A FERNIE SUPPLY UNIT A CHERNIE SUPPLY UNIT A CHERNIE SUPPLY UNIT A A CHERNIE SUPPLY UNIT A A A A A A A A A A A A A A A A A A A	70 70 3 3 4 4 4 1 1 1 0	886.45 933 60.22 63. 164.25 172 24.45 25.	979.77 11 66.56 39 181.53 89 27.03 74 0.00	AAA AAA AAA AAA AAA AAA	6 Bed W 1 Bed W 2 Bed W 2 Bed Ward 6 Bed Ward 6 Bed Ward 6 Bed Ward	17.04 56.61 60.70 62.93	OK 2 BAD 6 BAD 6 BAD 6 BAD	Cancel DH_EX2/1 DH_EX2/1 DH_EX2/1 DH_EX2/1 DH_EX2/1	contains 85 recor	SSEM seribly INIC 1 CLINICE DH_EX2 DH_EX2 H2	Code Assembly Name Small Clinic KAMPLE CLINIC_EXAMPLE Disrict Hospital 2 District Hospital Natalspruit	S consulting room clinic (Gamopedi)     Imported from comma delimited file     277 bed District Hospital example (Khayelits     277 bed District Hospital example (Structure     760 bed hospital (KataSpital)     32 bed hypothetical Medical Ward Layout, cm
Inglical T NN work space: beds A A aggnotic Radiology T A work space: A PERATING THEATRES T A work space: theatre A work space: theatre A core: A T	70 70 3 3 4 4 4 1 1 1 0	886.45 933 60.22 63. 164.25 172 24.45 25. 0.00	979.77 11 66.56 39 181.53 89 27.03 74 0.00	AAA AAA AAA AAA AAA AAA AAA	6 Bed W 1 Bed W 2 Bed W 2 Bed Ward 6 Bed Ward 6 Bed Ward 6 Bed Ward 6 Bed Ward	17.04 56.61 60.70 62.93 56.61	OK 2 BAD 6 BAD 6 BAD 6 BAD 6 BAD	Cancel DH_EX2/1 DH_EX2/1 DH_EX2/1 DH_EX2/1 DH_EX2/1 DH_EX2/1	contains 85 recor	SSEM ser bij NiQ 1 CLINIC E DH_EX3 DH_EX2 H2 MED_W	Code Assembly Name Small Clinic XAMPLE CLINIC_EXAMPLE Disrict Hospital 2 District Hospital NatalSpruit Medical Ward Type 1	Consulting room clinic (Gamopedi)     Imported from comma delimited file     277 bed District Hospital example (Mayelis     277 bed District Hospital example (Structure     760 bed hospital (Masispital)     32 bed hypothetical Medical Ward Layout, on
Inglical T NN work space: beds A A aggnotic Radiology T A work space: A PERATING THEATRES T A work space: theatre A work space: theatre A core: A T	70 70 3 3 4 4 4 1 1 1 0	886.45 933 60.22 63. 164.25 172 24.45 25. 0.00	979.77 11 66.56 39 181.53 89 27.03 74 0.00	AAA AAA AAA AAA AAA AAA AAA AAA	6 8ed W 1 8ed W 2 8ed W 2 8ed Ward 6 8ed Ward	17.04 56.61 60.70 62.93 56.61 60.57	OK 2 BAD 6 BAD 6 BAD 6 BAD 6 BAD 6 BAD 6 BAD	Cancel           V         DH_EX2/1	contains 85 recor	SSEM ser bij NiQ 1 CLINIC E DH_EX3 DH_EX2 H2 MED_W	Code Assembly Name Small Clinic XAMPLE CLINIC_EXAMPLE Disrict Hospital 2 District Hospital NatalSpruit Medical Ward Type 1	S consulting room clinic (Gamopedi)     Imported from comma delimited file     277 bed District Hospital example (Khayelits     277 bed District Hospital example (Structure     760 bed hospital (KataSpital)     32 bed hypothetical Medical Ward Layout, cm
rgical T NN work space: beds A a agnostic Radiology A a agnostic Radiology A a work space: A A work space: A A work space: A A work space: theatre A B work space: theatre A A work space: theatre A A work space: theatre A A core: A A A A A A A A A A A A A A A A A A A	70 70 3 3 4 4 4 1 1 1 0	886.45 933 60.22 63. 164.25 172 24.45 25. 0.00	979.77 11 66.56 39 181.53 89 27.03 74 0.00	AAA AAA AAA AAA AAA AAA AAA AAA AAA	6 Bed W 1 Bed W 2 Bed W 2 Bed Ward 6 Bed Ward	17.04 56.61 60.70 62.93 56.61 60.57 68.46	OK 2 BAD 6 BAD 6 BAD 6 BAD 6 BAD 6 BAD 6 BAD	Cancel V DH_EX2/1 V DH_EX2/	contains 85 recor	SSEM ser bij NiQ 1 CLINIC E DH_EX3 DH_EX2 H2 MED_W	Code Assembly Name Small Clinic XAMPLE CLINIC_EXAMPLE Disrict Hospital 2 District Hospital NatalSpruit Medical Ward Type 1	Consulting room clinic (Gamopedi)     Imported from comma delimited file     277 bed District Hospital example (Mayelis     277 bed District Hospital example (Structure     760 bed hospital (Masispital)     32 bed hypothetical Medical Ward Layout, on
rgical T NN work space: beds A a agnostic Radiology A a agnostic Radiology A a work space: A A work space: A A work space: A A work space: theatre A B work space: theatre A A work space: theatre A A work space: theatre A A core: A A A A A A A A A A A A A A A A A A A	70 70 3 3 4 4 4 1 1 1 0	886.45 933 60.22 63. 164.25 172 24.45 25. 0.00	979.77 11 66.56 39 181.53 89 27.03 74 0.00	AAA AAA AAA AAA AAA AAA AAA AAA AAA AA	6 Bed W 1 Bed W 2 Bed W 2 Bed Ward 6 Bed Ward 8 Bed Ward Nurses Station	17.04 56.61 60.70 62.93 56.61 60.57 68.46 9.06	OK 2 BAD 6 BAD 6 BAD 6 BAD 6 BAD 6 BAD 6 BAD 6 BAD 8 BAD	Cancel           V         DH_EX2/1	contains 85 recor	SSEM ser bij NiQ 1 CLINIC E DH_EX3 DH_EX2 H2 MED_W	Code Assembly Name Small Clinic XAMPLE CLINIC_EXAMPLE Disrict Hospital 2 District Hospital NatalSpruit Medical Ward Type 1	Consulting room clinic (Gamopedi)     Imported from comma delimited file     277 bed District Hospital example (Mayelis     277 bed District Hospital example (Structure     760 bed hospital (Masispital)     32 bed hypothetical Medical Ward Layout, on
rgical T NN work space: beds A genotic Radiology A genotic Radiology A work space: A work space: A work space: heatre A work space: theatre A work space: theatre A core: A core: A T T	70 70 3 3 4 4 4 1 1 1 0	886.45 933 60.22 63. 164.25 172 24.45 25. 0.00	979.77 11 66.56 39 181.53 89 27.03 74 0.00	AAA AAA AAA AAA AAA AAA AAA AAA AAA AA	6 Bed W 1 Bed W 2 Bed Ward 6 Bed Ward 7 Bed Ward	17.04 56.61 60.70 62.93 56.61 60.57 68.46 9.06 9.06 18.47	0K 2 8AD 6 8AD 6 8AD 6 8AD 6 8AD 6 8AD 6 8AD 8 8AD 8AD 8AD 8AD	Cancel	contains 85 recor	SSEM ser bij NiQ 1 CLINIC E DH_EX3 DH_EX2 H2 MED_W	Code Assembly Name Small Clinic XAMPLE CLINIC_EXAMPLE Disrict Hospital 2 District Hospital NatalSpruit Medical Ward Type 1	Consulting room clinic (Gamopedi)     Imported from comma delimited file     277 bed District Hospital example (Mayelis     277 bed District Hospital example (Structure     760 bed hospital (Masispital)     32 bed hypothetical Medical Ward Layout, on
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urgical T AN work space: beds A Assensit: Radiology A AA work space: A PERATING THEATRES A work space: theatre A work space: theatre A work space: theatre A core: A T	70 70 3 3 4 4 4 1 1 1 0	886.45 933 60.22 63. 164.25 172 24.45 25. 0.00	979.77 11 66.56 39 181.53 89 27.03 74 0.00	AAA         AAA           AJA         AJA           BC         BC           BC         BC           BC         BC           BC         BC           BC         BC		17.54 56.61 60.70 62.33 56.61 60.57 66.45 9.06 18.47 18.47 18.47 18.47 18.47 18.47 18.47 18.80 9.20 9.20 9.20 9.20 9.21 8.57 9.21 8.21 8.21 8.21	0K 2 8AD 6 8AD 6 8AD 6 8AD 6 8AD 8 8AD	Cancel Can	contains 85 record	SSEM ser bij NiQ 1 CLINIC E DH_EX3 DH_EX2 H2 MED_W	Code Assembly Name Small Clinic XAMPLE CLINIC_EXAMPLE Disrict Hospital 2 District Hospital NatalSpruit Medical Ward Type 1	3 consulting room clinic (Gamopedi) Imported from comma delimited file 277 bed District Hospital example (Khayelits) 277 bed District Hospital example (Structure

Figure 16: Delete assembly library item (Step 1 and 2) (Drag from 1 and Drop at 2)

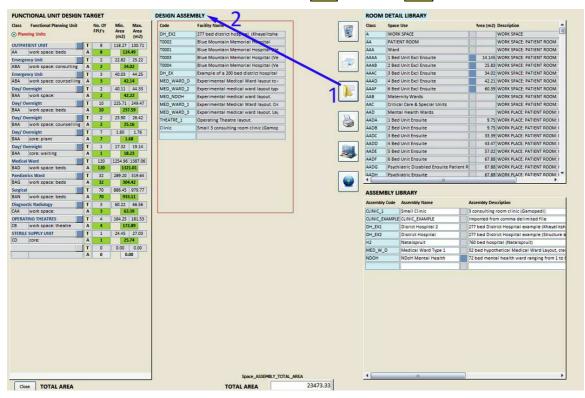


Figure 17: Delete entire project permanently from the design repository (Step 1 and 2) (<mark>Drag</mark> from 1 and Drop at 2)



FUNCTIONAL UNIT DESIGN TARGET		DESIGN ASSEMBLY	ROOM	M DETAIL LIBRARY	
Class Functional Planning Unit No. Of		Code Facility Name	Class	Space Use	Area (m2) Description
Planning Units     FPU's	Area Area (m2) (m2)	DH_EX2 DTL bedroisurt: h0spital. (Khayelitsha		WORK SPACE	WORK SPACE
		T0002 Slue Mountain Memorial Hospital	AA	PATIENT ROOM	WORK SPACE: PATIENT ROOM
AA work space: beds A 8	118.27 130.71 124.49	T0001 5 Blue Mountain Memorial Hospital (Ve	AAA	Ward	WORK SPACE: PATIENT ROOM:
Emergency Unit	22.82 25.22	T0003 Blue Mountain Memorial Hospital (Ve	AAAA	1 Bed Unit Excl Ensuite	14 145 WORK SPACE: PATIENT ROOM:
ABA work space: consulting A 2	22.82 25.22	T0004 Blue Mountain Memorial Hospital (Ve	AAAB	2 Bed Unit Excl Ensuite	25.83 WORK SPACE: PATIENT ROOM:
Emergency Unit T 3	40.03 44.25	DH_EX Example of a 200 bed district hospital	AAAC	3 Bed Unit Excl Ensuite	34.02 WORK SPACE: PATIENT ROOM:
ABA work space: counselling A 3	42.14	MED WARD D Experimental Medical Ward layout to (	AAAD	4 Bed Unit Excl Ensuite	42.21 WORK SPACE: PATIENT ROOM:
Day/ Overnight T 2	40.11 44.33	MED_WARD_2 Experimental medical ward layout type	AAAF	6 Bed Unit Excl Ensuite	60.39 WORK SPACE: PATIENT ROOM:
BAA work space: A 2	42.22	MED_NDOH Experimental medical ward layout.	AAB AAB	Maternity Wards	WORK SPACE: PATIENT ROOM:
Day/ Overnight	225.71 249.47		AAC	Critical Care & Special Units	WORK SPACE: PATIENT ROOM:
BAA work space: beds A 10	237.59	MED_WARD_3 Experimental medical ward layout Lay	AAD	Mental Health Wards	WORK PLACE: PATIENT ROOM: I
Day/ Overnight T 2	23.90 26.42	THEATRE_1 Operating Theatre layout.	AADA	1 Bed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
BAA work space: counselling A 2	25.16	Clinic Small 3 consulting room clinic (Gamoc	AAD8	2 Bed Unit Ensuite	9.75 WORK PLACE: PATIENT ROOM: I
Day/ Overnight T 7	1.60 1.76	unan o consorting room crimic (damor	AADD	3 Bed Unit Ensuite	33.39 WORK PLACE PATIENT ROOM: 1
AA core; plant A 7	1.68		AADD	4 Bed Unit Ensuite	43.47 WORK PLACE: PATIENT ROOM: I
Day/ Overnight T 1	17.32 19.14		AADD		
BAA core: waiting A 1	18.23			5 Bed Unit Ensuite	57.02 WORK PLACE: PATIENT ROOM: I
Medical Ward T 120	1254.96 1387.06		AADF	6 Bed Unit Ensuite	67.88 WORK PLACE: PATIENT ROOM: I
AD work space: beds A 120	1321.01		IAADG	Reurbiatric Disabled Ensuite Patient P	
Paediatrics Ward T 32 BAG work space: beds A 32	289.20 319.64	FAST warning		uite	67.88 WORK PLACE: PATIENT ROOM: 1
B work space: theatre A 4 TERILE SUPPLY UNIT T 1 D core: A 1 T 0	172.89 24.45 27.03 25.74 0.00 0.00		DH_EX DH_EX H2 MED_V	2 District Hospital Natalspruit	277 bed District Hospital example (Khayelits 277 bed District Hospital example (Structure 760 bed hospital (Natalspruit) 32 bed hypothetical Medical Ward Layout, cr
A 0	0.00		NDOH	NDoH Mental Health	32 bed nypothetical wedical ward Layout, cre 72 bed mental health ward ranging from 1 to
			NUOH	NUON Mental Health	12 ded mental health ward ranging from 1 to
Close TOTAL AREA			EA	11	•

Figure 18: Delete entire project from design repository (Step 3 and 4) (Drag from 3 and Drop at 4)

#### Space target dashboard (define design targets menu item)

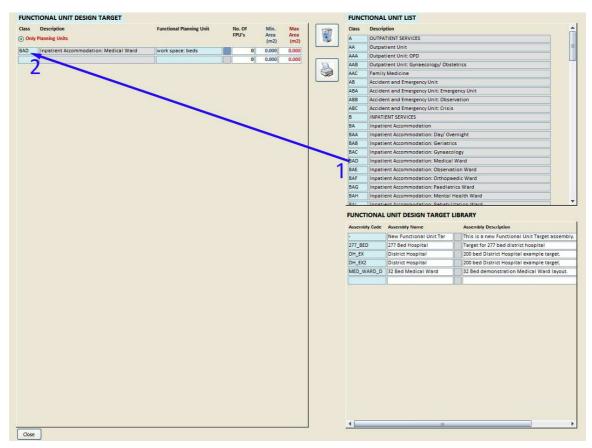
This is the main form where design targets are created. The following methods can be used to create a target:

- It can be created department by department from the FUNCTIONAL UNIT LIST. (Least efficient)
- A predefined target can be selected from the FUNCTIONAL UNIT DESIGN TARGET LIBRARY, if a suitable target already exists. (Very efficient)
- A target template can be created from a good precedent design that is currently loaded in the DESIGN ASSEMBLY. This was illustrated in Figure 11 above. (Very efficient)

The latter method discussed above is a good example of a case-based reasoning approach to complex problems. The theory of CBR, as well as the advantages and disadvantages of CBR, has been discussed above. Figure 19 illustrates phase 1 of the creation of a design target for a medical ward. To achieve this, select the functional unit (department) that you want to work with. Drag from object 1 and Drop at 2.

You will notice that only one line is inserted, because the FUNCTIONAL UNIT DESIGN TARGET panel is by default in Only Planning Unit mode. You can expand the list into individual functional units by clicking on the radio button. The heading will turn blue and confirm that you are now in Planning and Functional Unit mode. Instead of 11 only one item will now be displayed (Figure 19).





#### Figure 19: Create design target from FUNCTIONAL UNIT LIST phase 1 (Drag from 1 and Drop at 2)

Figure 20 illustrates how an expanded list for the medical departments looks. One department expanded into 11 sub-items called functional units. Each functional unit represents a different planning unit. Each department should have at least four functional units, i.e. workspace, workspace support, core, and structure. However, in many cases there will be more depending on the complexity of the department.



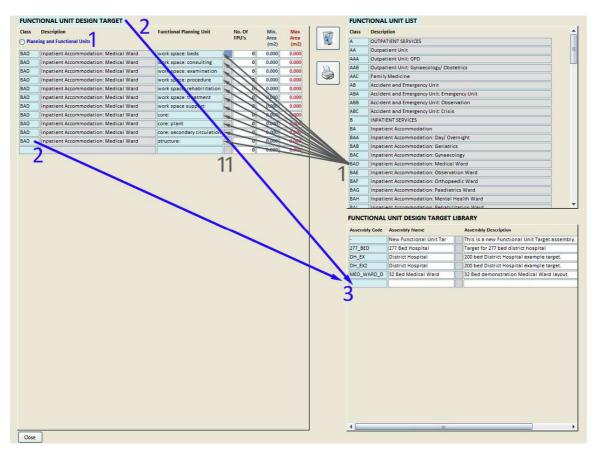


Figure 20: Create design target from FUNCTIONAL UNIT LIST phase 2

You can now proceed to fill in the No. of FPUs, Min. Area (m<sup>2</sup>) and the Max Area (m<sup>2</sup>) fields. This is a timeconsuming process and requires a very high level of skill to accomplish. It is assumed that an indication of the number of planning and functional units would be available from the output of the infrastructure optimisation planning toolkit (IOPT).

Once specific targets have been set, you may save the target for future use. Two possibilities are supported. You can **Drag** from 2 (FUNCTIONAL UNIT DESIGN TARGET) and **Drop** at 3, or you can **Drag** from 2 (FUNCTIONAL UNIT DESIGN TARGET Class object) and **Drop** at 3. The former will transfer or save the complete contents of the FUNCTIONAL UNIT DESIGN TARGET into the FUNCTIONAL UNIT DESIGN TARGET LIBRARY and the latter will only transfer the specific department where you start the **Drag** from. This provides the designer with a lot of flexibility.

Note that a default name is allocated to the design target when it arrives in the **FUNCTIONAL UNIT DESIGN TARGET LIBRARY**. The Assembly Code = '-', the Assembly Name = 'New Functional Unit Target Assembly' and the Assembly Description is 'This is a new Functional Unit Target assembly.' These general default descriptions need to be renamed to something that precisely describes the intent and characteristics of the particular design target.



## THE ESPACE PARAMETRIC RULE DEFINITION AND AD HOC SPATIAL ANALYSIS LANGUAGE

#### Introduction

This section is a specialized section about the ESPACE language. It would normally only be used by advanced or interested users. It is included here to provide full documentation of all the capabilities of *FAST*.

The ESPACE rule and ad hoc query definition language is a simple (not as extensive as Java, C or Visual Basic .NET) and flexible interpretive<sup>1</sup> language that is used as part of the *FAST* system to analyse spatial usage directly and to formulate rules to derive the area of spaces that vary their size, depending on a specific context. It can be used to compare a particular facility against any number of norms, or even other facilities.

For the development of ESPACE applets a special interactive code developer is provided that can be used to create ad hoc requests and/or to develop code that will be used in the norms formulation. (Figure 21) In terms of ESPACE a rule or ad hoc query applet is an autonomous, limited size code fragment that can be used to formulate ad hoc spatial queries or it can be used in the norms rule formulation itself.

<sup>1</sup> The ESPACE rule is executed line-by-line when the Execute button is pressed in the Interactive Query Builder/Debugger or when a derived space is dragged-and-dropped into the DESIGN ASSEMBLY area of FAST.



Rule Name	IUSS_CSSD
Description	Determine the CSSD size.
Department	
Rule	DECLARE a = 'BEDS'
	RETURN 'Total number of beds = ' & a
	If a > 600 then RETURN a *0.5
	NETONNA 0.3
	Else If a >= 300 then
	RETURN a * 0.6
	END
	If a < 300 then
	RETURN a * 0.7
	End
Debugging Log	Rule Valid
Couseins cos	
Close	<u>V</u> ersion <u>T</u> est <u>Execute</u>

Figure 21: FAST interactive rule and ad hoc query builder

Although applets can theoretically be developed for any facility hierarchical level such as facility, building, floor or space, the interactive Query Builder/Debugger supports testing of applets only at facility level. At the moment *FAST* only supports design analysis at facility level, because the **DESIGN ASSEMBLY** system does not support other levels such as building, floor or space. As the need arises in future, the development team might consider the further expansion and support of hierarchical facility levels to support more advanced analysis.

#### The ESPACE interactive language

The ESPACE language is described in detail below. It contains powerful high level functions that would normally have required very complex database structured query language (SQL) queries to achieve the same result. It also contains logical control structures normally found in any language such as an *If Then Else End* control structures. Variables are created with the DECLARE function and results are returned with the RETURN function.

When an applet is developed in the Interactive Query Builder, results are displayed in a pop-up window. (Figure 22) When the same code is placed in the Area Calculation Rule textbox of the Functional Space Classification form, the code is executed whenever the user drag-and-drop the particular space type into the DESIGN ASSEMBLY area. The result appears in the area field and is highlighted in yellow (Figure 23) to indicate that the derived answer in m<sup>2</sup> is the result of a calculation or rule.



If no applets have been defined for a particular classification category or space type, then the Area m<sup>2</sup> will not be filled in automatically. If no formula has been defined for a space type and no static area has been allocated then nothing will be displayed.

Rule Name	IUSS_CSSD			
Description	Determine the CSSD size.			
Department	BAD			
Rule	DECLARE a = 'BEDS' RETURN 'Total number of beds = ' & a			
	If a > 600 then RETURN a *0.5 Else If a >= 300 then RETURN a * 0.6 END If a < 300 then RETURN a * 0.7 End End			
Debugging Log	Rule Valid			
Close	Version Test Execute			

Figure 22: Result of query in interactive environment



DUA	Nichen	0.05	DAU	Un_cx2/1
BQB	Kitchen	8.29	BAD 🗸	DH_EX2/1
BSH	Clean Linen	6.28	BAD 🗸	DH_EX2/1
BSH	CLEAN LINEN	8.50	BAD 💉	DH_EX2/1
BSH	Clean Linen	6.28	BAD 💌	DH_EX2/1
BSH	CLEAN LINEN	6.29	BAD 💌	DH_EX2/1
BSI	DIRTY LINEN	11.19	BAD 🗸	DH_EX2/1
CAAG	Secondary Circulation	600.09	BAD 💉	DH_EX2/1
CBAD	ELEC. DUCT	2.00	BAD 😽	DH_EX2/1
CBAD	DUCT	0.53	BAD 🗸	DH_EX2/1
CBAD	DUCT	0.14	BAD 🗸	DH_EX2/1
CBAD	DUCT	0.40	BAD 🗸	DH_EX2/1
CBAD	DUCT	0.61	BAD 💌	DH_EX2/1
CRAD	DUCT	0 19	BAD 😽	DH EX2/1

#### Figure 23: The yellow highlighted block indicates that the area in m<sup>2</sup> is the result of a resolved rule

#### How to develop an ESPACE applet

The discussion below describes how to develop an ESPACE applet. Although *FAST* is delivered with a fully functional set of ESPACE applets, it might be necessary from time to time to modify the existing norms or to create ad hoc queries for particular purposes. Please refer to Table 5 for a summary of all available ESPACE functions.

Assume that an applet needs to be developed that will return the percentage of core area in a health facility. Assume that the designer aims to achieve a % somewhere between 32.51% and 35.94%. The current Khayelitsha Hospital has a core percentage of 34.23%. To activate the *FAST* Interactive Query Builder/Debugger, select the *FAST* Rule Builder option on the Rule Definition tab of the *FAST* Main Form.

Create a new applet record by selecting the  $\bowtie$  action button on the form. Choose an appropriate name for the applet and enter it in the Program Name field. Enter an appropriate description for the applet such as "This applet returns the percentage of core area. In this case we are aiming for something that should be between 32.51% and 35.94%" to describe the exact purpose or function of the applet.

The next field can be left open at this stage because the applet must first be developed before a specific department can be selected for testing and more specific analysis purposes.

The purpose of the applet is to return the percentage of core area. ESPACE has a high level function CORE that will return all spaces that have a top level classification category of C. Seeing the percentage core in relation to the workspace area, the applet calculates the actual workspace area. In the ESPACE functional space classification, category A contains categories that are closely related to, but are not actually workspace area. The solution to this is to use the high level WORK\_SPACE function and to subtract the spatial types that must not be included. The first step is therefore to declare temporary variables to contain these values.

#### **STEP 1: Declare applet variables**

DECLARE a = 'WORK\_SPACE' DECLARE c = 'CORE' DECLARE e = '~AB' DECLARE f = '~AC' DECLARE g = '~AD'

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#### **STEP 2: Calculate percentage core space**

RETURN c/(a - (e+f+g)) \* 100.0

The RETURN statement will display the result of the calculation. This is useful in the interactive debugging and testing environment. However, when the applet is placed in the norms definition environment, this program statement can be disabled by placing a // in front of the statement. The statement will then look like this:

// RETURN c/(a - (e+f+g)) \* 100.0

Core is calculated by dividing the amount of core area (contained in variable c) by the amount of workspace area (contained in variable a). The amount of workspace area is adjusted by subtracting all shared/communal (~AB), public interface (~AC) and technical/special (~AD) areas. Note the use of the '~'. This indicates that all spatial type categories lower down in the hierarchy, including the actual classification category, must be included. This is a convenient shorthand method in the case of ~AB to include AB, ABA, ABB, ABC, ABD, ABE, ABF and ABG. If you want just one particular category and nothing else, use the \_AB notation.

**STEP 3: Calculate result to be returned** 

```
IF c/(a - (e+f+g)) * 100.0 > 35.94 THEN
RETURN '> 35.94%'
ELSE
RETURN '< 35.94%'
END
```

The applet is now complete and can be tested. Before the applet is tested make sure that the **DESIGN ASSEMBLY** area of the Create Design (Space ASSEMBLY DASHBOARD) contains some realistic data, facility, assembly or set of desired spaces. Select the Parse button to check the code and run the applet. If there was a logical error in the code, then this will be reported in the Log field, for example:

# SYNTAX ERROR. Line 14. Expecting: EOF - & ) \* / + < <= <> == >>= declare do else end if read return then while

If no errors were found then the log will report

#### -- Applet Valid --

You can now proceed and analyse other facilities. This particular example can only be used in the interactive environment, because it does not return an area. If you formulate a rule for use in DESIGN ASSEMBLY area, the applet must be rule that returns an area. Furthermore, it must only return one result, because the area field can only contain one answer.



#### **Table 6: Summary of ESPACE functions**

5604.05 (			
ESPACE function	Hierarchical level <sup>2</sup> 1 = facility	Examples	Comments
	, 2 = building		
	3 = floor		
	4 = space		
FACILITY_LEVEL	1	DECLARE d = 'FACILITY_LEVEL'	Returns the level of the particular health facility as defined in the 'Designated Level of Facility' field of the Current Health Facility form.
FLOORS	1, 2	DECLARE a = 'FLOORS'	At level 1 it returns all floors in the
		RETURN a	facility. At level 2 it returns only the floors within the current building.
ALL_PERSONS	1	DECLARE a = 'ALL_PERSONS'	Returns the number of persons in the
		RETURN a	entire facility.
PERSONS	1, 2, 3 or 4	DECLARE a = 'PERSONS'	Returns the total number of persons
		RETURN a	at the current hierarchical level.
PERSONS(_A to _DE or ~A to	1, 2, 3 or 4	DECLARE a = 'ALL_PERSONS'	Returns the number
~DE)		DECLARE b = 'PERSONS(~AAA)'	of persons in a
		DECLARE c = 'PERSONS(~AAB)' DECLARE d = 'PERSONS(~AAD)'	specific classification category or
		DECLARE e = 'PERSONS(~AAD)'	classification
		RETURN a	hierarchy.
		RETURN b	
		RETURN c	
		RETURN d	
	1	RETURN e	Detune all the
WORK_SPACE	1	<pre>// Total amount of workspace area per person</pre>	Returns all the workspace (category
		person	A) space in the entire
		DECLARE a = 'ALL_PERSONS'	facility.
		DECLARE b = 'WORK_SPACE'	
		DECLARE c = 'WORK_SPACE_SUPPORT'	
		DECLARE d = 'CORE' DECLARE e = 'STRUCTURE'	
		DECLARE f = b+c+d+e	
		RETURN 'Category Workspace (A) = ' RETURN b	

<sup>&</sup>lt;sup>2</sup> In the *FAST* software environment only one hierarchical level is supported, because the concept of building, floor and space does not exist. The only level supported is Facility Level.



		RETURN 'Category Workspace Support (B) =	
		RETURN c	
		RETURN 'Category Core (C) = ' RETURN d	
		RETURN 'Category Structure (D) = ' RETURN e	
		RETURN 'Number of Persons = ' RETURN a	
		RETURN 'Total Floor Area = ' RETURN f	
		RETURN 'Space per Person = ' RETURN f/a	
WORK_SPACE_SUPPORT	1	See above	Returns all the workspace support (category B) space in the entire facility.
CORE	1	See above	Returns all the core (category C) space in the entire facility.
STRUCTURE	1	See above	Returns the structural area (category D) for the entire facility. It includes both external and internal walls.
BEDS	1	DECLARE a = 'BEDS' RETURN 'Total number of beds = ' & & a	Returns the total number of beds in the facility. The <i>PeopleCodes</i> field value of 'M001' in the <space_assembly> table is used to recognise beds.</space_assembly>
FACILITY_LEVEL	1	<pre>// Calculate CAAG DECLARE a = '@?' DECLARE b = 'AREA_DEPARTMENT_SPACETYPE(?,CAAG)' DECLARE c = 'AREA_DEPARTMENT_SPACETYPE(?,D)' DECLARE d = 'FACILITY_LEVEL' IF (d &gt;= 3) THEN RETURN (a-b-c)*0.28829690 ELSE RETURN (a-b-c)*0.28829690 END</pre>	Returns the level of the facility as a whole number (integer) selected on the Define Facility form. The values returned are described in detail in Table 6. The function reads the <i>TypeOfHealthFacility</i> field of the <currentfacility> database table.</currentfacility>
		See above	Returns the sum of the area for only the

INFRASTRUCTURE UNIT SUPPORT SYSTEMS (IUSS) PROJECT Health Facility Guides: 10 September 2014

Facility Assembly Schedule Toolkit briefing tool (FAST) [PROPOSAL V.3]



_A to _DE	1, 2, 3 or 4		specific classification. The classification must be prefixed with a '_' to indicate to the ESPACE interpreter that a space category rather than a variable is intended.
~A to ~DE	1, 2, 3 or 4	See above	Returns the sum of the area for the hierarchical family of space classifications where the particular classification is at the top of the hierarchy. The required classification family must be prefixed with a '~' to indicate to the ESPACE interpreter that a space category rather than a variable is intended.
@A to @J	1	DECLARE a = '@BAD' DECLARE b = '@?' RETURN 'Area for only department BAD = ' & a RETURN 'Area for any department with late binding = ' & b	Returns the sum of the area for only the specific department classification. The classification must be prefixed with a '@' to indicate to the ESPACE interpreter that a department category rather than a variable is intended.
#A to #J	1	DECLARE a = '#BAD' DECLARE b = '#?' RETURN 'Area for hierarchy under BAD = ' & a RETURN 'Area for hierarchy under BAD with late binding = ' & b	Returns the sum of the area for the hierarchical family of department classifications where the particular classification is at the top of the hierarchy. The required classification family must be prefixed with a '#' to indicate to the ESPACE interpreter that a space category rather than a variable is intended.
?	1		This is the late binding symbol used for depart- ment/functional unit



INFRASTRUCTURE UNIT SUPPORT SYSTEMS (IUSS) PROJECT Health Facility Guides: 10 September 2014 Facility Assembly Schedule Toolkit briefing tool (FAST) [PROPOSAL V.3]

			specifically. This means that the relevant department is only provided at runtime when the particular department is known within the specific context. This is very economical, because only one applet can be developed and used universally.
General ESPACE funct	ions		
Comment Start = '/*' Comment End = '*/' Comment Line = '//'	n/a	// Development and debug code	Provides a means to comment parts of the applet.
DECLARE	n/a	DECLARE a = 12 DECLARE b = 'ALL_PERSONS' DECLARE c = 'PERSONS(~AAC)' DECLARE d = '_AAC'	Creates new variables. The first character must be alphabetic. Different declarations are possible depending on the desired result. The variables are case-insensitive and the length is virtually unlimited. Practical considerations will however limit it to no more than 10 alphanumeric characters.
RETURN	n/a	IF f/a > 12 THEN RETURN '>' ELSE RETURN '<' END	Returns the result of an evaluation. If the first character returned is a '<' or '>' then the answer will be coloured green or red.
lf Then End If Then Else End	n/a	IF f/a > 12 THEN RETURN '>' ELSE RETURN '<' END	Provides logical control in the applet.
While Do End	n/a	DECLARE a = 12 WHILE (a > 1) DO DECLARE a = a -1 RETURN a END	Provides an alternative to the If Then End or If Then Else End structure. Note the use of the RETURN to decrement the value being tested for.



+, -, *, /	n/a	IF (a/12)+(3.14*2) > 24 then RETURN '>' ELSE RETURN '<' END	Plus, minus, multiply and divide can be used in any expression with or without nesting brackets.
&	n/a	RETURN ((a/b) * 100) & ' %'	This is useful to concatenate strings or to append special symbols to an answer. Enclose the numerical part between braces; otherwise unexpected results may be produced.
<, <=, >=, ==, <>	n/a	If (a >= 12) THEN RETURN 'larger or equal 12' END	These operators are available for comparisons.

### **Example of an ESPACE applet**

To develop a new ESPACE applet or edit an existing one, go to the ESPACE Interactive Query Builder/Debugger. Access to this utility is found on the Rule Definition tab of the *FAST* Main Menu (Figure 4).



rogram Name	DEPARTMENT AREA			
Description	This applet returns the total department area			
Department	BAD			
Applet	DECLARE a = '@BAD' DECLARE b = '@?' DECLARE c = '#BAD' DECLARE d = '#?'			
	RETURN 'Area for only department BAD = ' & a RETURN 'Area for any department with late binding = ' & b RETURN 'Area for hierarchy under BAD = ' & c RETURN 'Area for hierarchy under BAD with late binding = ' & d			
Debugging Log	Applet Valid			

#### Figure 24: ESPACE applet to calculate department areas

Press the button to open the Interactive Query Builder. To create new applets select the button at the bottom of the form. Fill in an appropriate name in the Program Name field. This name should describe what the applet does, for example **DEPARTMENT AREA**. The description field offers the opportunity to describe in a little bit more detail what the purpose of the applet is for example

#### This applet returns the total department area

The current contents (list of spaces) of the DESIGN ASSEMBLY are used during debugging to run the code. (Figure 24) Before an applet can be fully tested, select a current department from the dropdown list in the

interactive debugger. To test an applet for valid syntax, press the **Parse** button. If the test is successful then the words -- Applet Valid - will be displayed in the Debugging Log field. If the user failed to select a particular department beforehand, then the late binding symbol<sup>3</sup> '?' will be undefined. This means that the applet is valid; however it cannot return any values, because it does not know for which department you want to run the applet for.

An ESPACE rule or ad hoc query consists of three main sections and is created in the applet section (Figure 25):



<sup>&</sup>lt;sup>3</sup> Late binding means a value is only known at a late stage, i.e. when the code executes. This makes the applet very flexible, because it can be used in any context.

- 1. Declare section
- 2. Calculation section
- 3. Return or result section

#### Figure 25: The applet section of the Interactive Query Builder

In the **DECLARE** section all the variables to accomplish the calculations are defined. In this case six variables have been defined. Although there is virtually no limitation to the length of the variable names, it should not be too long. For ease of use there is no difference in the declaration for numerical or text variables. For this reason users should use variables in a sensible descriptive way. For example, one should not try and add a string such as **'Workspace'** to a numeric value such as **5** and expect a realistic result. If you want to display a friendly description concatenated to a numeric answer use the **&** operator, for example **'Workspace Support = ' & b.** It is good style to use braces around variables such as **d/e**. This ensures that a calculation is bound together correctly, before attempting to concatenate the result to some descriptive text.

In the example there is no formal calculation section, because the applet is relatively simple. For debugging purposes some **RETURN** statements can be included to progressively check the correctness of the applet. Once the applet is properly tested the debugging statements can be commented out with '/\*' and '\*/' on each comment code line.

The final section is the **RETURN** section where the results of the applet are displayed. If the applet will be used in the rule-based environment in the **DESIGN ASSEMBLY** area then only one result must be returned,



because the area field can obviously only contain on value at a time. If the applet will only be used in the interactive environment for analysis or enquiry purposes, then multiple results can be returned to analyse the spatial characteristics. In the example the final output of the results are displayed with six RETURN statements.

ESPACE knows in which execution mode it is running, i.e. interactive mode (debugging or ad hoc query) or rule interpretation mode in the **DESIGN ASSEMBLY** area. In the interactive applet development environment, output is displayed in a small pop-up window. When a user drags and drops a space with a rule attached to it into the *FAST* **DESIGN ASSEMBLY** area, the results are returned in the area field of the **DESIGN ASSEMBLY** section of the Create Design form. It is highlighted in yellow to indicate that the result is based on an ESPACE formula.

### **APPENDIX A – FORMAL ESPACE LANGUAGE SPECIFICATION**

Below is the formal Backus-Naur syntax specification or logical description of the ESPACE ad hoc query and rule definition language used in *FAST*. The ESPACE language implementation for the IUSS project was developed by means of the GOLD (Grammar Oriented Language Developer) Parser Builder version 5.2.0, written by Devin Cook. (Cook, 1997)

```
"Name" = 'ESPACE'
"Author" = 'D.C.U. Conradie'
"Version" = '1.0'
"About" = 'ESPACE is designed to handle parametric space planning analysis and norms'
"Case Sensitive" = False
"Start Symbol" = <Statements>
{String Ch 1} = {Printable} - ["]
{String Ch 2} = {Printable} - ["]
{ID Tail} = {Alphanumeric} + [_]
        = {Letter}{Alphanumeric}*
ld
! String allows either single or double quotes
StringLiteral = " {String Ch 1}* "
       | "" {String Ch 2}* ""
NumberLiteral = {Digit}+('.'{Digit}+)?
Comment Start = '/*'
Comment End = '*/'
Comment Line = '//'
<Statements> ::= <Statement> <Statements>
        | <Statement>
<Statement> ::= return <Expression>
        | return <Expression> read ID
        | declare ID '=' <Expression>
        | while <Expression> do <Statements> end
        | if <Expression> then <Statements> end
        | if <Expression> then <Statements> else <Statements> end
<Expression> ::= <Expression> '>' <Add Exp>
         | <Expression> '<' <Add Exp>
         | <Expression> '<=' <Add Exp>
         | <Expression> '>=' <Add Exp>
         | <Expression> '==' <Add Exp>
         | <Expression> '<>' <Add Exp>
         <Add Exp>
<Add Exp>
            ::= <Add Exp> '+' <Mult Exp>
         | <Add Exp> '-' <Mult Exp>
```

```
| <Add Exp> '&' <Mult Exp>
```



#### | <Mult Exp>

```
<Mult Exp> ::= <Mult Exp> '*' <Negate Exp>
| <Mult Exp> '/' <Negate Exp>
| <Negate Exp>
```

<Negate Exp> ::= '-' <Value> | <Value>

#### <Value> ::= ID

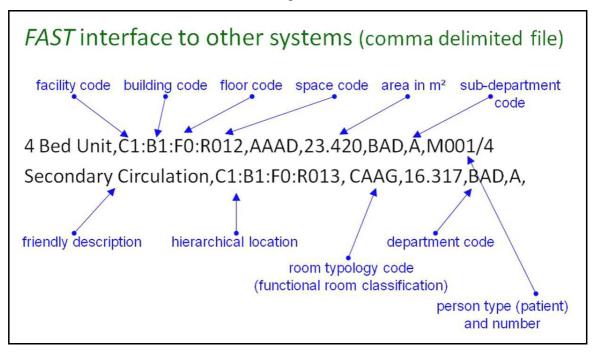
| StringLiteral | NumberLiteral | '(' <Expression> ')'



### **APPENDIX B - INTERFACING TO OTHER SYSTEMS**

*FAST* does not exist on its own and therefore needs a method to import information from other systems, such as external CAD-systems, Quantity Surveyor software, CodeBook and spreadsheets. This appendix describes the simple comma delimited flat file structure that facilitates this.

Figure 26 illustrates the required structured fields to export information into *FAST* from CAD-systems such as *AutoCAD*, *Revit* and *CADDIE*. A record in this standard will contain either six or seven comma delimited fields, depending on the type of record. Table 6 illustrates how the comma delimited file for a small clinic looks that conforms to the structure illustrated in Figure 26.



#### Figure 26: The FAST comma delimited interface standard

Table 6 provides detail about the *FAST* comma delimited exchange standard fields. Please note that the fields are separated with a ',' and if there is no person type field, the last field ends with a ','. The various parts of the hierarchical structure for the hierarchical location are concatenated with the ':' symbol.

Field	Description
Friendly Description	Short description of the particular room.
Facility Code	A facility code. One facility can contain many buildings, floors and spaces.
Building Code	A building code. The building code is separated from the facility code with a ':' separator. This is the second level in the facility hierarchy. A facility might contain one or many buildings.
Floor Code	A floor code. The floor code is separated from the building code with a ':' separator. This is the third level of the facility hierarchy. One building can contain one or many floors in a high-rise health facility.



Field	Description
Space Code	A space code. The space code is separated from the floor code with a ':' separator. This code is selected from the IUSS Functional Space Classification, e.g. <b>AAAD.</b>
Area in m²	This is the net area in m <sup>2</sup> of the facility. It should be to 3-decimal accuracy to ensure adequate accuracy.
Department Code	The department code must be selected from the IUSS Department Classification.
Sub-Department Code	The sub-department code gives an indication of how contiguous the spaces in a department are. If all the spaces that make up a department are together, then all the spaces would have a sub-department code of A. However, if the department is fragmented in three main areas, then area 1 would be indicated with a 'A', area 2 with a 'B' and area 3 with a 'C'.
Person Type and Number	This field should only be used for clinical rooms that have a bed unit. It should not be used for treatment and consulting rooms that might also contain a bed. The code for a patient is ' <b>M001</b> '. This is followed by the ' <b>/</b> ' delimiter and the number of beds in a bed unit, for example 4.

Table 8: Example of a FAST comma delimited file that contains all the spaces for a small clinic

Garden Store,C1:B1:F0:R001,BGK,3.77,AA,A, Dirty Utility,C1:B1:F0:R002,BMC,5.92,AA,A, WC Staff,C1:B1:F0:R003,BEC,2.98,AA,A, WC Staff,C1:B1:F0:R004,BEC,1.8,AA,A, Kitchen Staff,C1:B1:F0:R005,BQ,9.95,AA,A, Sub-Waiting Area, C1:B1:F0:R006, CAAK, 26.74, AA, A, Entrance Lobby,C1:B1:F0:R007,CAAM,11.73,AA,A, Waiting Area, C1:B1:F0:R008, CAAK, 31.36, AA, A, Toilet Lobby,C1:B1:F0:R009,CAAM,5.62,AA,A, Male Toilets,C1:B1:F0:R010,BEAA,2,AA,A, Male Toilets, C1:B1:F0:R011, BEAA, 9.02, AA, A, Disabled Toilet, C1:B1:F0:R012, BE, 4.22, AA, A, Female Toilets, C1:B1:F0:R013, BEAB, 2, AA, A, Female Toilets,C1:B1:F0:R014,BEAB,2,AA,A, Female Toilets,C1:B1:F0:R015,BEAB,7.34,AA,A, Waiting Area External, C1:B1:F0:R016, CAAK, 21.41, AA, A, Reception,C1:B1:F0:R017,BAA,4.44,AA,A, Play Area, C1:B1:F0:R018, ALG, 7.13, AA, A, Walk-In C.B.D,C1:B1:F0:R019,BGB,5.17,AA,A, Room Treatment, C1:B1:F0:R020, AJA, 15.26, AA, A, Room 1 Consulting, C1:B1:F0:R021, AFA, 15.26, AA, A, Room 2 Consulting, C1:B1:F0:R022, AFA, 15.26, AA, A, Home Based Care, C1:B1:F0:R023, AHA, 15.26, AA, A, Passage,C1:B1:F0:R024,CAAB,32.84,AA,A, Counselling Room, C1:B1:F0:R025, AGA, 15.42, AA, A, Room Triage/Observation,C1:B1:F0:R026,AAJ,12.53,AA,A, Paraplegic WC,C1:B1:F0:R027,BE,3.24,AA,A,



Medicine Store,C1:B1:F0:R028,BP,8.32,AA,A,	
Private Consult,C1:B1:F0:R029,AFA,4.92,AA,A,	
Area Medicine Waiting,C1:B1:F0:R030,CAAK,10.2,AA,A,	
Dispensary,C1:B1:F0:R031,BP,19.47,AA,A,	
Scheduled Medicine Store,C1:B1:F0:R032,BP,4.4,AA,A,	
Receiving/Holding,C1:B1:F0:R033,BPG,5.23,AA,A,	
Food Parcels Store,C1:B1:F0:R034,BQR,5,AA,A,	
Passage,C1:B1:F0:R036,CAAB,12.49,AA,A,	
Structure,C1:B1:F0:R037,DA,471.52,I,A,	

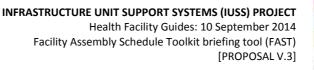
If the *FAST* comma delimited exchange file conforms to the standards above, you can import it directly into the *FAST* ASSEMBLY LIBRARY by going to the System Administration tab of the FAST Main Form. Select the Import .txt, .dat or.csv file File Into *FAST* option. The screen illustrated below in Figure 27 appears.

Select a FAST c	omma delimited import	file			? 🔀
Look in:	SYSTEM (C:)		🖌 🔾 🦻	📂 🖽 •	
My Recent Documents Desktop My Documents	ATOMIC07 Autodesk BOXCAR3 BPL Climate5.4 Climate5.4 Documents and Settings Drivers gstools HDBinWeather Data IDAPI Inetpub Lakes	M3 Server hbbackup NDPS Program Files RetainPlugin Screenshots SpacePlanning HpSophos WAR WINDOWS			
My Computer		v files (*.csv) as read-only			)pen ancel

Figure 27: Select a FAST comma delimited import file

Choose an appropriate file extension with the dropdown indicated as 'Files of type'. Three types of extension are supported, i.e. .txt, .dat and .csv. Navigate to the directory where the input file is located.

The screen illustrated with Figure 28 appears.





Select a FAST o	omma delimit	ed import file	? 🛛
Look in:	C EXCHANGE	E STANDARD 28012014 🛛 💊 🔗 📂 🖽 🗸	
My Recent Documents	Clinic_Examp		
My Documents			
My Computer	File name:	Clinic_Example.txt	Open
My Network	Files of type:	FAST .txt files (*.txt)	Cancel

Figure 28: Select a comma delimited file with a .txt extension

In the example two files are displayed. Select the Clinic\_Example.txt file and select the Open command button. The screen illustrated in Figure 29 appears. Select OK to continue the import. The data is imported into the **ASSEMBLY LIBRARY**. After import you can rename the **Assembly Code**, **Assembly Name** and **Assembly Description** fields to suit your particular description and naming conventions.

FAST AI	lert	
⚠	Are you sure that you want to imp	oort external FAST data records ancel

Figure 29: Confirm import of FAST comma delimited import file



### **APPENDIX C – FUNCTIONAL SPACE CLASSIFICATION**

n.c			ail Library : THEATRE: Theatre Setting Up Room: Large			
	4	WORK SF	ACE: THEATRE: Theatre Setting Up Room: Large			
		Classificatio	Detailed Description	Description	Planning Unit	Area (m2
		anca	WORK SPACE: THEATRE: Theatre Setting Up Room: Large	Theatre Setting Up Room (Large		1
		bgha	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Store - Equipment (Large)	Store - Equipment (Large)		
а	wo	RK SPACE				
	a	WORK SP	ACE			
		Classificatio	Detailed Description	Description	Planning Unit	Area (m
		a	WORK SPACE	WORK SPACE	work space:	
	aa	WORK SE	ACE: PATIENT ROOM	Contraction Proceedings		
	aa	Section of the section of the	Detailed Description	Description	Planning Unit	Area (m
		<b>aa</b>	WORK SPACE: PATIENT ROOM	PATIENT ROOM	work space: beds	61 March 19
		aaa	WORK SPACE: PATIENT ROOM Ward	Ward	work space: beds	
		aaaa	WORK SPACE: PATIENT ROOM: WARD: 1 Bed Unit (Excl Ensuite)	1 Bed Unit Excl Ensuite	work space: beds	
		aaab	WORK SPACE: PATIENT ROOM: WARD: 2 Bed Unit (Excl Ensure)	2 Bed Unit Excl Ensuite	work space: beds	
		aaac	WORK SPACE: PATIENT ROOM: WARD: 3 Bed Unit (Excl Ensuite)	3 Bed Unit Excl Ensuite	work space: beds	
		aaad	WORK SPACE: PATIENT ROOM: WARD: 4 Bed Unit (Excl Ensuite)	4 Bed Unit Excl Ensuite	work space: beds	
		aaaf	WORK SPACE: PATIENT ROOM: WARD: 6 Bed Unit (Excl Ensuite)	6 Bed Unit Excl Ensuite	work space: beds	
		aab	WORK SPACE: PATIENT ROOM: Maternity Wards	Maternity Wards	work space: beds	
		aac	WORK SPACE: PATIENT ROOM: Critical Care & Special Units	Critical Care & Special Units	work space: beds	
		aad	WORK PLACE: PATIENT ROOM: Mental Health Wards	Mental Health Wards	work space: beds	
		aada	WORK PLACE: PATIENT ROOM: MENTAL HEALTH WARDS: Psychiatric Bed Unit Ensuite	Psychiatric Bed Unit Ensuite	work space: beds	
		aadaa	WORK PLACE: PATIENT ROOM: MENTAL HEALTH WARDS: 1 BED ENSUITE: Psychiatric 1 Bed Unit Low Secure	Psychiatric 1 Bed Unit Low Secu		
		aadab	WORK PLACE: PATIENT ROOM: MENTAL HEALTH WARDS: 1 BED ENSUITE: Psychiatric 1 Bed Unit Medium Secure			
		aadb	WORK PLACE: PATIENT ROOM: MENTAL HEALTH WARDS: Psychiatric 2 Bed Unit Low Secure	Psychiatric 2 Bed Unit Low Secu		
		aadc	WORK PLACE: PATIENT ROOM: MENTAL HEALTH WARDS: 3 Bed Ensuite	3 Bed Unit Ensuite	work space: beds	
		aadd	WORK PLACE: PATIENT ROOM: MENTAL HEALTH WARDS: Psychiatric 4 Bed Unit Low Secure	Psychiatric 4 Bed Unit Low Secu	1	
		aade	WORK PLACE: PATIENT ROOM: MENTAL HEALTH WARDS: 5 Bed Ensuite	5 Bed Unit Ensuite	work space: beds	
		aadf	WORK PLACE: PATIENT ROOM: MENTAL HEALTH WARDS: 6 Bed Ensuite	6 Bed Unit Ensuite	work space: beds	
		aadg	WORK PLACE: PATIENT ROOM: MENTAL HEALTH WARDS: Psychiatric Disabled Ensuite Patient Room	Psychiatric Disabled Ensuite Pati	work space: beds	
		aadh	WORK PLACE: PATIENT ROOM: MENTAL HEALTH WARDS: Psychiatric Ensuite	Psychiatric Ensuite	work space: beds	
		aae	WORK PLACE: PATIENT ROOM: Other	Other	work space: beds	
		aaf	WORK PLACE: PATIENT ROOM: Emergency Unit	Emergency Unit	work space: beds	
		aag	WORK PLACE: PATIENT ROOM: Paediatric	Paediatric	work space: beds	
		aah	WORK PLACE: PATIENT ROOM: Care Center Room - Baby	Care Center Room - Baby	work space:	
10 5-	ptembe	r 2014	Copyright (c) 2004 - 2014 Building Science and Technology, Built Environment Unit	CSIP		Page 1 of 1

INFRASTRUCTUREUNITSUPPORTSYSTEMS(IUSS)PROJECT

Health Facility Guides: 3 March 2014 Facility Assembly Schedule Toolkit briefing tool (FAST) [DISCUSSION DRAFT 1.0]



	aea	WORK SPACE: ISOLATION ROOM: Baby	Isolation (Baby)	work space: isolation	
	ae	WORK SPACE: ISOLATION ROOM	ISOLATION ROOM	work space: isolation	2
	Classifica	tion Detailed Description	Description	Planning Unit	Area (m
ae	WORK	SPACE: ISOLATION ROOM			
4	ada	WORK SPACE: INCUBATOR: Baby	Incubator (Baby)	work space:	
	ad	WORK SPACE: INCUBATOR	INCUBATOR	work space:	
		tion Detailed Description	Description	Planning Unit	Area (m
ad	WORK	SPACE: INCUBATOR			
57	acd	WORK SPACE: ICU: Baby	ICU (Baby)	work space: icu beds	
	acc	WORK SPACE: ICU WARD BED: Maternity	ICU (Maternity)	work space: icu beds	
	acb	WORK SPACE: ICU WARD BED: Paediatric	ICU (Paediatric)	work space: icu beds	
	aca	WORK SPACE: ICU WARD BED: Adult	ICU (Adult)	work space: icu beds	
	ac	WORK SPACE: ICU WARD BED	ICU	work space: icu beds	
	Classifica	tion Detailed Description	Description	Planning Unit	Area (r
ac	WORK	SPACE: ICU WARD BED			
#	abc	WORK SPACE: HIGH CARE WARD BED: Maternity	High Care (Maternity)	work space: high care beds	
	abb	WORK SPACE: HIGH CARE WARD BED: Paediatric	High Care (Paediatric)	work space: high care beds	
	aba	WORK SPACE: HIGH CARE WARD BED: Adult	High Care (Adult)	work space: high care beds	
	ab	WORK SPACE: HIGH CARE WARD BED	HIGH CARE WARD BED	work space: high care beds	
ab		SPACE: HIGH CARE WARD BED tion Detailed Description	Description	Planning Unit	Area (n
	ddl	WORK PLACE: PATIENT ROOM: PHC - Emergency Room	PHC - Emergency Room	work space, beus	
	aas aat	WORK PLACE: PATIENT ROOM: PHC - MOU WORK PLACE: PATIENT ROOM: PHC - Emergency Room	PHC - MOU PHC - Emergency Room	work space: beds work space: beds	
	aar	WORK PLACE: PATIENT ROOM: PHC - Post Natal Room	PHC - Post Natal Room	work space: beds	
	aaq	WORK PLACE: PATIENT ROOM: Bariatric Patient Room	Bariatric Patient Room	work space: beds	
	aapc	WORK PLACE: PATIENT ROOM: NEO NATAL WARD: Neonatal Isolation Room	Neonatal Isolation Room	work space: beds	
	aapb	WORK PLACE: PATIENT ROOM: NEO NATAL WARD: Neo Natal Intensive Care	Neo Natal Intensive Care	work space: beds	
	aapa	WORK PLACE: PATIENT ROOM: NEO NATAL WARD: Neo Natal High Care	Neo Natal High Care	work space: beds	
	aap	WORK PLACE: PATIENT ROOM: Functional Space - Neonatal	Functional Space - Neonatal	work space: beds	
	aao	WORK PLACE: PATIENT ROOM: Neonatal Well Baby Nursery	Neonatal Well Baby Nursery	work space: beds	
	aana	WORK PLACE: PATIENT ROOM: BODY HOLDING ROOM: Dead On Arrival (DOA)	Dead On Arrival (DOA)	work space: beds	
	aan	WORK PLACE: PATIENT ROOM: Body Room	Body Room	work space: beds	
	aam	WORK PLACE: PATIENT ROOM: Observation Ward	Observation Ward	work space: beds	
	aal	WORK PLACE: PATIENT ROOM: Calming Room	Calming Room	work space: beds	
	aak	WORK PLACE: PATIENT ROOM: Psychiatric Seclusion Room	Psychiatric Seclusion Room	work space: beds	
	aaja	WORK PLACE: PATIENT ROOM: OBSERVATION ROOM: PHC - Direct Observation Room/ Sickbay	PHC - Direct Observation Room/	work space: beds	
	aaj	WORK PLACE: PATIENT ROOM: Observation Room	Observation Room	work space: beds	
	aaia	WORK PLACE: PATIENT ROOM: DELIVERY ROOM: Maternity Assessment Room	Maternity Assessment Room	work space: beds	

#### INFRASTRUCTUREUNITSUPPORTSYSTEMS(IUSS)PROJECT

	aeb	WORK SPACE: ISOLATION ROOM: P4	Isolation (P4)	work space: isolation		
af	10000	PACE: CONSULTING ion Detailed Description	Description	Planning Unit	Area (m2	
	af	WORK SPACE: CONSULTING	CONSULTING	work space: consulting		
	afa	WORK SPACE: CONSULTING: Consulting Room	Consulting Room (Large)	work space: consulting	1	
	afaa	WORK SPACE: CONSULTING: Consulting Room: Consulting Room Adult	Consulting Room (Standard)	work space: consulting	1	
	afab	WORK SPACE: CONSULTING: Consulting Room: Consulting Room Paediatric	Consulting Room Paediatric	work space: consulting	1	
ag		PACE: COUNSELLING ion Detailed Description	Description	Planning Unit	Area (m2	
	ag	WORK SPACE: COUNSELLING	Counselling	work space: counselling		
	aga	WORK SPACE: COUNSELLING: Counselling Room	Counselling Room	work space: counselling	1	
	agb	WORK SPACE: COUNSELLING: TB Dots Room	TB Dots Room	work space: counselling		
ai	WORK S	PACE: ASSESSMENT				
	Classificat	ion Detailed Description	Description	Planning Unit	Area (m2	
	ai	WORK SPACE: ASSESSMENT	Assessment	work space: assessment		
	aia	WORK SPACE: ASSESSMENT: Adult Assessment Room	Adult Assessment Room	work space: assessment		
	aiaa	WORK SPACE: ASSESSMENT: ASSESSMENT ROOM: Paediatric Assessment Room	Paediatric Assessment Room	work space: assessment		
	aib	WORK SPACE: ASSESSMENT: Vitals Room Mothers and Babies	Vitals Room Mothers and Babie	work space: assessment		
	aic	WORK SPACE: ASSESSMENT: Vitals Room Paediatrics	Vitals Room Paediatrics	work space: assessment		
	aid	WORK SPACE: ASSESSMENT: Vitals Room Adults	Vitals Room Adults (2 x Assessm	work space: assessment	3	
	aida	WORK SPACE: ASSESSMENT: VITALS ROOM ADULTS: PHC - Adult Vitals Area and Universal Toilet	PHC - Adult Vitals Area and Univ	work space: assessment		
	aie	WORK SPACE: ASSESSMENT: Sputum Collection Cubicle - External	Sputum Collection Cubicle - Ext	work space: assessment		
	aif	WORK SPACE: ASSESSMENT: Triage	Triage	work space: assessment		
aj	WORK SPACE: TREATMENT					
	Classificat	ion Detailed Description	Description	Planning Unit	Area (m2	
	aj	WORK SPACE: TREATMENT	TREATMENT	work space: treatment		
	aja	WORK SPACE: TREATMENT: Treatment Room	Treatment Room	work space: treatment	1	
	ajaa	WORK SPACE: TREATMENT: TREATMENT ROOM: Treatment Bay Acute Adult	Treatment Bay Acute Adult	work space: treatment	1	
	ajab	WORK SPACE: TREATMENT: TREATMENT ROOM: Treatment Bay Non-Acute Adult	Treatment Bay Non-Acute Adult	work space: treatment	1	
	ajac	WORK SPACE: TREATMENT: TREATMENT ROOM: Treatment Bay Acute Paediatric	Treatment Bay Acute Paediatric	work space: treatment	1	
	ajad	WORK SPACE: TREATMENT: TREATMENT ROOM: Treatment Bay Non-Acute Paediatric	Treatment Bay Non-Acute Paed	i work space: treatment	1	
	ajae	WORK SPACE: TREATMENT: TREATMENT ROOM: Treatment Room/ Wound Care	Treatment Room/ Wound Care	work space: treatment	1	
	ajb	WORK SPACE: TREATMENT: Activity Room	Activity Room	work space: treatment		
	ajc	WORK SPACE: TREATMENT: Wound Care Room	Wound Care Room	work space: treatment		
	ajd	WORK SPACE: TREATMENT: Fracture Room	Fracture Room	work space: treatment		
	aje	WORK SPACE: TREATMENT: Suture Room	Suture Room	work space: treatment		
	ajf	WORK SPACE: TREATMENT: (OT and Physio) Treatment Room	(OT and Physio) Treatment Roo	work space: treatment		
	ajg	WORK SPACE: TREATMENT: Rehydration Cubicle	Rehydration Cubicle	work space: treatment		
	ajh	WORK SPACE: TREATMENT: Resus	Resus (2 x bays incl. X-Ray)	work space: treatment	7	
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Health Facility Guides: 3 March 2014 Facility Assembly Schedule Toolkit briefing tool (FAST) [DISCUSSION DRAFT 1.0]



	ajha	WORK SPACE: TREATMENT: RESUS: Resus Bay Adult	Resus Bay (2 x bays)	work space: treatment	
	ajhb	WORK SPACE: TREATMENT: RESUS: Resus Bay Paediatric	Resus Bay Paediatric	work space: treatment	
	ajhc	WORK SPACE: TREATMENT: RESUS: Neonatal - Baby Resus	Neonatal - Baby Resus	work space: treatment	
ak	WORK	SPACE: PROCEDURE ROOM			
		tion Detailed Description	Description	Planning Unit	Area (n
	ak	WORK SPACE: PROCEDURE ROOM	PROCEDURE ROOM	work space: procedure	-
	aka	WORK SPACE: PROCEDURE: Dental Surgery	Dental Surgery	work space: dental	
	akaa	WORK SPACE: PROCEDURE: DENTAL SURGERY: Dental Surgery - Small	Dental Surgery Small	work space: dental	
	akab	WORK SPACE: PROCEDURE: DENTAL SURGERY: Dental Surgery - Large	Dental Surgery Large	work space: dental	
	akb	WORK SPACE: PROCEDURE: EEG Room	EEG Room	work space: procedure	
	akc	WORK SPACE: PROCEDURE: Endoscopy	Endoscopy	work space: procedure	
	akd	WORK SPACE: PROCEDURE: Exercise Room - Cardiology	Exercise Room - Cardiology	work space: procedure	
	ake	WORK SPACE: PROCEDURE: Lungfunction	Lungfunction	work space: procedure	
	akf	WORK SPACE: PROCEDURE: Neurology	Neurology	work space: procedure	
	akg	WORK SPACE: PROCEDURE: Nuclear Medicine	Nuclear Medicine	work space: procedure	
	akh	WORK SPACE: PROCEDURE: Opthalmology	Opthalmology	work space: procedure	
	aki	WORK SPACE: PROCEDURE: Optometry	Optometry	work space: procedure	
	akj	WORK SPACE: PROCEDURE: Procedure Room	Procedure Room (Large)	work space: procedure	
	akk	WORK SPACE: PROCEDURE: Pulmonology Room	Pulmonology Room	work space: procedure	
	akl	WORK SPACE: PROCEDURE: Renal Unit	Renal Unit	work space: procedure	
	akm	WORK SPACE: PROCEDURE: Stomatherapy	Stomatherapy	work space: procedure	
	akn	WORK SPACE: PROCEDURE: Ultrasound Room	Ultrasound Room	work space: procedure	
	ako	WORK SPACE: PROCEDURE: Urology	Urology	work space: procedure	
	akp	WORK SPACE: PROCEDURE: Plaster of Paris Suite	Plaster of Paris Suite	work space: procedure	
	akg	WORK SPACE: PROCEDURE: Patient Preparation Room	Patient Preparation Room	work space: procedure	
	akga	WORK SPACE: PROCEDURE: PATIENT PREPARATION ROOM: PHC - Preparation Room	PHC - Preparation Room	work space: procedure	
	akr	WORK SPACE: PROCEDURE: Telemedicine Room	Telemedicine Room	work space: procedure	
	aks	WORK SPACE: PROCEDURE: Hazard Shower	Hazard Shower	work space: procedure	
	akt	WORK SPACE: PROCEDURE: Induction Room	Induction Room	work space: procedure	
	aku	WORK SPACE: PROCEDURE: ECT Procedure Room	ECT Procedure Room	work space: procedure	
	akua	WORK SPACE: PROCEDURE: ECT Procedure Room: ECT Procedure Recovery Room	ECT Procedure Recovery Room		
	akv	WORK SPACE: PROCEDURE: Phlebotomy Room	Phlebotomy Room	work space: procedure	
al	MORK	SPACE: REHABILITATION			
a		tion Detailed Description	Description	Planning Unit	Area (I
	al	WORK SPACE: REHABILITATION	REHABILITATION	work space: rehabilitation	
	ala	WORK SPACE: REHABILITATION: Audiology Booth	Audiology Booth	work space: rehabilitation	
	alb	WORK SPACE: REHABILITATION: Functional Space - Gymnasium	Gymnasium	work space: rehabilitation	
	alba	WORK SPACE: REHABILITATION: GYMNASIUM: (OT + Physio) Gymnasium - Small	(OT + Physio) Gymnasium - Sma	and the second	
	albb	WORK SPACE: REHABILITATION: GYMNASIUM: (OT + Physio) Gymnasium - Large	(OT + Physio) Gymnasium - Larg		
	alc	WORK SPACE: REHABILITATION: Nebulisation Area	Nebulisation Area	work space: rehabilitation	
	ald	WORK SPACE: REHABILITATION: Occupational Therapy	Occupational Therapy	work space: rehabilitation	
	2014				
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Health Facility Guides: 3 March 2014 Facility Assembly Schedule Toolkit briefing tool (FAST) [DISCUSSION DRAFT 1.0]

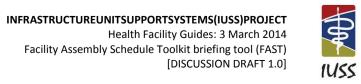


	ami amn amo amp amq amr amr	WORK SPACE: RADIOLOGY: Daylight Area WORK SPACE: RADIOLOGY: Xray View And Report Room WORK SPACE: RADIOLOGY: Xray Room - Chest WORK SPACE: RADIOLOGY: XRay Room - Intra-oral WORK SPACE: RADIOLOGY: XRay Room - MRI WORK SPACE: RADIOLOGY: XRay ROOM - MRI: XRay MRI Control Room	Daylight Area XRay View And Report Room XRay Room - Chest XRay Room - Intra-oral XRay Room - MRI XRay MRI Control Room	work space: work space: work space: work space: work space: work space:	
	aml amn amo amp amq	WORK SPACE: RADIOLOGY: Daylight Area WORK SPACE: RADIOLOGY: Xray View And Report Room WORK SPACE: RADIOLOGY: XRay Room - Chest WORK SPACE: RADIOLOGY: XRay Room - Intra-oral	XRay View And Report Room XRay Room - Chest XRay Room - Intra-oral	work space: work space: work space:	
	ami amn amo amp	WORK SPACE: RADIOLOGY: Daylight Area WORK SPACE: RADIOLOGY: Xray View And Report Room WORK SPACE: RADIOLOGY: XRay Room - Chest	XRay View And Report Room XRay Room - Chest	work space: work space:	
	ami amn amo	WORK SPACE: RADIOLOGY: Daylight Area WORK SPACE: RADIOLOGY: Xray View And Report Room	XRay View And Report Room	work space:	
	ami amn	WORK SPACE: RADIOLOGY: Daylight Area			
	ami		Davlight Area	work space:	
			Fanoranic Unit	work space.	
		WORK SPACE: RADIOLOGY: Wint Unit WORK SPACE: RADIOLOGY: Panoramic Unit	Panoramic Unit	work space:	
	amj	WORK SPACE: RADIOLOGY: Manography WORK SPACE: RADIOLOGY: MRI Unit	MRI Unit	work space:	
	ami	WORK SPACE: RADIOLOGY: Mamography WORK SPACE: RADIOLOGY: Mamography	Mamography	work space:	
	ami	WORK SPACE: RADIOLOGY: Heart Cathetisation (Cath. Lab)	Heart Cathetisation (Cath. Lab)		
	amg	WORK SPACE: RADIOLOGY: Full body scanner WORK SPACE: RADIOLOGY: X-Ray Room - Bucky	X-Ray Room - Bucky	work space:	
	ama	WORK SPACE: RADIOLOGY: Full Body Scanner	Full Body Scanner	work space:	
	amfa	WORK SPACE: RADIOLOGY: Fluoroscopy Screening Room WORK SPACE: RADIOLOGY: FLUOROSCOPY SCREENING ROOM: Fluoroscopy Control Room	Fluoroscopy Control Room	work space:	
	ameb amf	WORK SPACE: RADIOLOGY: CI SCANNER ROOM: CI Technical Room WORK SPACE: RADIOLOGY: Fluoroscopy Screening Room	Fluoroscopy Screening Room	work space:	
	amea	WORK SPACE: RADIOLOGY: CT SCANNER ROOM: CT Control Room WORK SPACE: RADIOLOGY: CT SCANNER ROOM: CT Technical Room	CT Technical Room	work space:	
	ame amea	WORK SPACE: RADIOLOGY: CT SCANNER ROOM: CT Control Room	CT Control Room	work space:	
	ame	WORK SPACE: RADIOLOGY: Chest Unit WORK SPACE: RADIOLOGY: CT Scanner Room	Criscanner	work space: work space:	
	amc amd	WORK SPACE: RADIOLOGY: Bunker Linear Accelerator WORK SPACE: RADIOLOGY: Chest Unit	Chest Unit	work space:	
		WORK SPACE: RADIOLOGY: Bunker Brachytherapy Unit	Bunker Brachytherapy Unit Bunker Linear Accelerator	work space:	
	ama amb	WORK SPACE: RADIOLOGY: Vascular WORK SPACE: RADIOLOGY: Runker Brachythorpey: Unit	Vascular Runkor Prochythoropy Unit	work space:	
	am	WORK SPACE: RADIOLOGY	RADIOLOGY	work space:	
ani		ion Detailed Description	Description	Planning Unit	Area (
am	WORKS	SPACE: RADIOLOGY			
	alqa	WORK SPACE: REHABILITATION: PSYCHIATRIC GROUP THERAPY ROOM: Ensuite	Ensuite	work space: rehabilitation	
	alq	WORK SPACE: REHABILITATION: Psychiatric Group Therapy Room	Psychiatric Group Therapy Roo	work space: rehabilitation	
	alpd	WORK SPACE: REHABILITATION: ADL: ADL Kitchen	ADL Kitchen	work space: rehabilitation	
	alpc	WORK SPACE: REHABILITATION: ADL: ADL Dining Room	ADL Dining Room	work space: rehabilitation	
	alpb	WORK SPACE: REHABILITATION: ADL: ADL Bedroom	ADL Bedroom	work space: rehabilitation	
	alpa	WORK SPACE: REHABILITATION: ADL: ADL Bathroom	ADL Bathroom	work space: rehabilitation	
	alp	WORK SPACE: REHABILITATION: ADL	ADL	work space: rehabilitation	
	alo	WORK SPACE: REHABILITATION: Hydrotherapy	Hydrotherapy	work space: rehabilitation	
	aln	WORK SPACE: REHABILITATION: Psychotherapy	Psychotherapy	work space: rehabilitation	
	alm	WORK SPACE: REHABILITATION: Wheelchair Training Area	Wheelchair Training Area	work space: rehabilitation	
	all	WORK SPACE: REHABILITATION: Physiotherapy	Physiotherapy	work space: rehabilitation	
	alk	WORK SPACE: REHABILITATION: Work Room	Work Room	work space: rehabilitation	
	alj	WORK SPACE: REHABILITATION: Evaluation Area (Orthotics & Prosthetics)	Evaluation Area (Orthotics & Pr		
	ali	WORK SPACE: REHABILITATION: Speech Therapy	Speech Therapy	work space: rehabilitation	
	alh	WORK SPACE: REHABILITATION: Podiatry	Podiatry	work space: rehabilitation	
	alg	WORK SPACE: REHABILITATION: Play Area (Child)	Play Area (Child)	work space: rehabilitation	
	ale alf	WORK SPACE: REHABILITATION: Orthotics & Prosthetics WORK SPACE: REHABILITATION: Patient Support	Orthotics & Prosthetics Patient Support	work space: rehabilitation work space: rehabilitation	



#### INFRASTRUCTUREUNITSUPPORTSYSTEMS(IUSS)PROJECT

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ane anf ang anh ani ank ank ank ank ank ank ank ank ann ano anq anq anqa anqb anr ans ans	WORK SPACE: THEATRE: Change Room Staff Theatre WORK SPACE: THEATRE: Pre Op Patient Holding Bay WORK SPACE: THEATRE: Blood Gas Analyzer WORK SPACE: THEATRE: Sorgery Inger Theatre WORK SPACE: THEATRE: Surgery Large Theatre WORK SPACE: THEATRE: Surgery Minor Theatre WORK SPACE: THEATRE: Surgery Specialist Cardiac Theatre WORK SPACE: THEATRE: Surgery Specialist Cardiac Theatre	Change Room Staff Theatre Pre Op Patient Holding Bay Blood Gas Analyzer Operating Theatre - Standard Surgery Large Theatre Surgery Minor Theatre Surgery Specialist Cardiac Theat	work space: work space: work space: work space: work space: work space: work space:	
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anh ani anj ank ann ann ano anp anq anq anqa anqa anqb anr ans ans	WORK SPACE: THEATRE: Operating Theatre - Standard WORK SPACE: THEATRE: Surgery Large Theatre WORK SPACE: THEATRE: Surgery Minor Theatre WORK SPACE: THEATRE: Surgery Specialist Cardiac Theatre WORK SPACE: THEATRE: Surgery Specialist Cath Lab Theatre	Operating Theatre - Standard Surgery Large Theatre Surgery Minor Theatre Surgery Specialist Cardiac Theat	work space: work space: work space: work space:	
ani anj ank anl anm anm ann ano anp anq anqa anqa anqb anr ans ans	WORK SPACE: THEATRE: Surgery Large Theatre WORK SPACE: THEATRE: Surgery Minor Theatre WORK SPACE: THEATRE: Surgery Specialist Cardiac Theatre WORK SPACE: THEATRE: Surgery Specialist Cath Lab Theatre	Surgery Large Theatre Surgery Minor Theatre Surgery Specialist Cardiac Theat	work space: work space: work space:	e
anj ank anl anm ann ano anp anq anq anqa anqb anr ans ans	WORK SPACE: THEATRE: Surgery Minor Theatre WORK SPACE: THEATRE: Surgery Specialist Cardiac Theatre WORK SPACE: THEATRE: Surgery Specialist Cath Lab Theatre	Surgery Minor Theatre Surgery Specialist Cardiac Theat	work space: work space:	
ank anl anm ann ano anp anq anq anqa anqb anr ans ans ant	WORK SPACE: THEATRE: Surgery Specialist Cardiac Theatre WORK SPACE: THEATRE: Surgery Specialist Cath Lab Theatre	Surgery Specialist Cardiac Theat	work space:	
anl anm ann ano anp anq anqa anqb anr ans ans ant	WORK SPACE: THEATRE: Surgery Specialist Cath Lab Theatre	contraction of the second s	Statistic and a second second	
anm ann ano anp anq anq anqb anr ans ans ant		Surgery Specialist Cath Lab Thea		
ann ano anp anq anqa anqb anr ans ans ant	WORK SPACE: THEATRE: Surgery Specialist Orthonaedic Theatre		a work space:	
ano anp anq anqa anqb anr ans ant	Work SPACE. Theather surgery specialist orthopaedic meatre	Surgery Specialist Orthopaedic	work space:	
anp anq anqa anqb anr ans ant	WORK SPACE: THEATRE: Surgery Specialist Burns Theatre	Surgery Specialist Burns Theatre	e work space:	
anq anqa anqb anr ans ant	WORK SPACE: THEATRE: Surgery Specialist Paediatric Theatre	Surgery Specialist Paediatric Th	work space:	
anqa anqb anr ans ant	WORK SPACE: THEATRE: Surgery Specialist Laparoscopic Theatre	Surgery Specialist Laparoscopic	work space:	
anqb anr ans ant	WORK SPACE: THEATRE: Angio Procedure Room	Angio Procedure Room	work space:	
anr ans ant	WORK SPACE: THEATRE: ANGIO PROCEDURE ROOM: Angio Report Room	Angio Report Room	work space:	
ans ant	WORK SPACE: THEATRE: ANGIO PROCEDURE ROOM: Angio Sterile Setup Room	Angio Sterile Setup Room	work space:	
ant	WORK SPACE: THEATRE: Surgery Obstetrics Theatre	Surgery Obstetrics Theatre	work space:	
	WORK SPACE: THEATRE: Surgery Standard Theatre	Surgery Standard Theatre	work space:	5
ao WORK SPA	WORK SPACE: THEATRE: Setup Room	Setup Room	work space:	
	ACE: CSSD			
Classification	Detailed Description	Description	Planning Unit	Area (m)
ao	WORK SPACE: CSSD	CSSD	work space:	
aoa	WORK SPACE: CSSD: Medical Equipment Processing	Medical Equipment Processing	work space:	
aob	WORK SPACE: CSSD: Instrument Hand Wash	Instrument Hand Wash	work space:	
aoc		Instrument Bulk Washers	work space:	
aod	WORK SPACE: CSSD: Instrument Bulk Washers	Microsurgical Instruments	work space:	
aoe	WORK SPACE: CSSD: Instrument Bulk Washers WORK SPACE: CSSD: Microsurgical Instruments		work space:	
ptember 2014		Decontamination Area		Page 6 of 1



ac	WORK SPACE SUPPORT: NURSE STATION: Sisters Office	Sisters Office	work space support:	
ab	WORK SPACE SUPPORT: NURSE STATION: Duty Room	Duty Room	work space support:	
aaa	WORK SPACE SUPPORT: NURSE STATION: NURSE STATION: PHC Nurse Station	PHC Nurse Station	work space support:	
aa	WORK SPACE SUPPORT: NURSE STATION: Nurse Station	Nurse Station	work space support:	
)a	WORK SPACE SUPPORT: NURSE STATION	NURSE STATION	work space support:	
	SPACE SUPPORT: NURSE STATION ation Detailed Description	Description	Planning Unit	Area (m)
0	WORK SPACE SUPPORT	WORK SPACE SUPPORT	work space support:	
lassifica	ation Detailed Description	Description	Planning Unit	Area (m
NORK	SPACE SUPPORT			
SPAC	CE SUPPORT			
d	WORK SPACE: ONCOLOGY: Chemotherapy Planning Room	Chemotherapy Planning Room	work space:	
qc	WORK SPACE: ONCOLOGY: Chemotherapy Treatment Room	Chemotherapy Treatment Roo	work space:	
qb	WORK SPACE: ONCOLOGY: Linear Accelerator Bunker	Linear Accelerator Bunker	work space:	
iqa	WORK SPACE: ONCOLOGY: Brachy Therapy Room	Brachy Therapy Room	work space:	
q	WORK SPACE: ONCOLOGY	ONCOLOGY	work space:	
	SPACE: ONCOLOGY ation Detailed Description	Description	Planning Unit	Area (m2
ipc	WORK SPACE: NUCLEAR MEDICINE: Gamma	Gamma	work space:	
ipb	WORK SPACE: NUCLEAR MEDICINE: PET CT	PET CT	work space:	
ipa	WORK SPACE: NUCLEAR MEDICINE: Bone Densitometry	Bone Densitometry	work space:	
p	WORK SPACE: NUCLEAR MEDICINE	NUCLEAR MEDICINE	work space:	
	SPACE: NUCLEAR MEDICINE ation Detailed Description	Description	Planning Unit	Area (m2
юр		FRC - C550	work space.	
00	WORK SPACE: CSSD: Wet Linen Trolleys WORK SPACE: CSSD: PHC - CSSD	Wet Linen Trolleys PHC - CSSD	work space: work space:	
ion	WORK SPACE: CSSD: Dispatch	Dispatch	work space:	
om	WORK SPACE: CSSD: Receiving/ Cleaning Room	Receiving/ Cleaning Room	work space:	
ol	WORK SPACE: CSSD: Trolley Wash	Trolley Wash	work space:	
iok	WORK SPACE: CSSD: Packing Area - Sterile	Packing Area - Sterile	work space:	
oj	WORK SPACE: CSSD: Cooling	Cooling	work space:	
ioi	WORK SPACE: CSSD: Loading	Loading	work space:	
ioh	WORK SPACE: CSSD: Autoclaves Area	Autoclaves Area	work space:	
log	WORK SPACE: CSSD: Sorting	Sorting	work space:	
-			Sorting	Sorting work space:



#### INFRASTRUCTUREUNITSUPPORTSYSTEMS(IUSS)PROJECT

bb		SPACE SUPPORT: RECEPTION/ CONTROL tion Detailed Description	Description	Planning Unit	Area (m	
	1				Area (m	
	bb	WORK SPACE SUPPORT: RECEPTION/ CONTROL	RECEPTION/ CONTROL	work space support:		
	bba	WORK SPACE SUPPORT: RECEPTION/ CONTROL: Reception	Reception	work space support:		
	bbb	WORK SPACE SUPPORT: RECEPTION/ CONTROL: Admission Counter	Admission Counter	work space support:		
	bbc	WORK SPACE SUPPORT: RECEPTION/ CONTROL: Help Desk	Help Desk	work space support:	4	
	bbca	WORK SPACE SUPPORT: RECEPTION/ CONTROL: HELP DESK: PHC Help Desk	PHC Help Desk	work space support:		
	bbd	WORK SPACE SUPPORT: RECEPTION/ CONTROL: Info/ Security Desk	Info/ Security Desk	work space support:		
	bbda	WORK SPACE SUPPORT: RECEPTION/ CONTROL: INFO/ SECURITY DESK: Security Admissions Psychiatric	Security Admissions psychiatric	work space support:		
	bbe	WORK SPACE SUPPORT: RECEPTION/ CONTROL: Client Service Point	Client Service Point	work space support:		
	bbf	WORK SPACE SUPPORT: RECEPTION/ CONTROL: Control Room	Control Room	work space support:		
	bbg	WORK SPACE SUPPORT: RECEPTION/ CONTROL: Call Centre Management	Call Centre Management	work space support:		
bc	WORK	SPACE SUPPORT: OFFICE				
	Classifica	tion Detailed Description	Description	Planning Unit	Area (n	
	bc	WORK SPACE SUPPORT: OFFICE	OFFICE	work space support:		
	bca	WORK SPACE SUPPORT: OFFICE: Cellular	Cellular Office	work space support:		
	bcaa	WORK SPACE SUPPORT: OFFICE: CELLULAR: Ward Office	Ward Office	work space support:		
	bcb	WORK SPACE SUPPORT: OFFICE: Group Office	Group Office	work space support:		
	bcc	WORK SPACE SUPPORT: OFFICE: Open Plan	Open Plan Office	work space support:		
	bcd	WORK SPACE SUPPORT: OFFICE: Combi Office	Combi Office	work space support:		
	bce	WORK SPACE SUPPORT: OFFICE: Mail Room	Mail Room	work space support:		
	bcf	WORK SPACE SUPPORT: OFFICE: Reprographics Room	Reprographics	work space support:		
	bcg	WORK SPACE SUPPORT: OFFICE: Porter Station	Porter Station	work space support:		
	bcga	WORK SPACE SUPPORT: OFFICE: PORTER STATION/ AREA: Porter Waiting Room	Porter Waiting Room	work space support:		
	bch	WORK SPACE SUPPORT: OFFICE: Police Station	Police Station	work space support:		
	bci	WORK SPACE SUPPORT: OFFICE: Functional Space - Work Station	Functional Space - Work Station	work space support:		
bd	WORK SPACE SUPPORT: TRAINING/ MEETING					
	Classifica	tion Detailed Description	Description	Planning Unit	Area (n	
	bd	WORK SPACE SUPPORT: TRAINING/ MEETING	TRAINING/ MEETING	work space support:		
	bda	WORK SPACE SUPPORT: TRAINING/ MEETING: Classroom	Classroom	work space support:		
	bdaa	WORK SPACE SUPPORT: TRAINING/ MEETING: CLASSROOM: Oncology Class Room	Oncology Class Room	work space support:		
	bdb	WORK SPACE SUPPORT: TRAINING/ MEETING: Lecture Room	Lecture Room	work space support:		
	bdc	WORK SPACE SUPPORT: TRAINING/ MEETING: Meeting Room	Meeting Room	work space support:		
	bdca	WORK SPACE SUPPORT: TRAINING/ MEETING: MEETING ROOM: Meeting Room - Small	Meeting Room - Small	work space support:		
	bdcb	WORK SPACE SUPPORT: TRAINING/ MEETING: MEETING ROOM: Meeting Room - Medium	Meeting Room - Medium	work space support:		
	bdcc	WORK SPACE SUPPORT: TRAINING/ MEETING: MEETING ROOM: Meeting Room - Large	Meeting Room - Large	work space support:		
	bdd	WORK SPACE SUPPORT: TRAINING/ MEETING: Training Room - Education	Training Room - Education	work space support:		
	bde	WORK SPACE SUPPORT: TRAINING/ MEETING: Student Area/ Study Room	Student Area/ Study Room	work space support:		
	bdf	WORK SPACE SUPPORT: TRAINING/ MEETING: Board Room Executive	Board Room Executive	work space support:		
	bdg	WORK SPACE SUPPORT: TRAINING/ MEETING: Auditorium	Auditorium	work space support:		



#### INFRASTRUCTUREUNITSUPPORTSYSTEMS(IUSS)PROJECT

	bdh	WORK SPACE SUPPORT: TRAINING/ MEETING: Multi-purpose Room	Multi-purpose Room	work space support:	20.6
be		PACE SUPPORT: ABLUTION on Detailed Description	Description	Planning Unit	Area (m
	be	WORK SPACE SUPPORT: ABLUTION	ABLUTION	work space support:	
	bea	WORK SPACE SUPPORT: ABLUTION: Public/ Visitor	Public/ Visitor Ablution	work space support:	
	beaa	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: Male	PUBLIC/ VISITOR: Male	work space support:	
	beaaa	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: MALE: Toilet Public	Toilet Male Public	work space support:	
	beaab	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: MALE: Shower Public	Shower Male Public	work space support:	
	beaac	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: MALE: Shower Assisted Public	Shower Male Assisted Public	work space support:	
	beaad	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: MALE: Bath Public	Bath Male Public	work space support:	
	beaae	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: MALE: Bath Assisted Public	Bath Male Assisted Public	work space support:	
	beaaf	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: MALE: WHB Public	WHB Male Public	work space support:	
	beaag	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: MALE: Toilet Wheel Chair Assessible	Toilet Wheel Chair Assessible	work space support:	
	beab	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: Female	PUBLIC/ VISITOR: Female	work space support:	
	beaba	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: FEMALE: Toilet Public	Toilet Female Public	work space support:	
	beabb	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: FEMALE: Shower Public	Shower Female Public	work space support:	
	beabc	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: FEMALE: Shower Assisted Public	Shower Female Assisted Public	work space support:	
	beabd	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: FEMALE: Bath Public	Bath Female Public	work space support:	
	beabe	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: FEMALE: Bath Assisted Public	Bath Female Assisted Public	work space support:	
	beabf	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: FEMALE: WHB Public	WHB Female Public	work space support:	
	beabg	WORK SPACE SUPPORT: ABLUTION: PUBLIC/ VISITOR: FEMALE: Toilet Assisted Public	Toilet Female Assisted Public	work space support:	
	beb	WORK SPACE SUPPORT: ABLUTION: Potient	Patient Ablution	work space support:	
	beba	WORK SPACE SUPPORT: ABLUTION: PATIENT: Male	PATIENT: Male	work space support:	
	bebaa	WORK SPACE SUPPORT: ABLUTION: PATIENT: MALE: Toilet Patient	Toilet Male Patient	work space support:	
	bebab	WORK SPACE SUPPORT: ABLUTION: PATIENT: MALE: Shower Patient	Shower Male Patient	work space support:	
	bebac	WORK SPACE SUPPORT: ABLUTION: PATIENT: MALE: Shower Assisted Patient	Shower Male Assisted Patient	work space support:	
	bebad	WORK SPACE SUPPORT: ABLUTION: PATIENT: MALE: Sidwer Assisted Patient	Bath Male Patient	work space support:	
	bebae	WORK SPACE SUPPORT: ABLUTION: PATIENT: MALE: Bath Assisted Patient	Bath Male Assisted Patient	work space support:	
	bebaf	WORK SPACE SUPPORT: ABLUTION: PATIENT: MALE: WHB Patient	WHB Male Patient	work space support:	
	bebag	WORK SPACE SUPPORT: ABLUTION: PATIENT: MALE: WHB Fadient WORK SPACE SUPPORT: ABLUTION: PATIENT: MALE: Toilet Assisted Patient	Toilet Male Assisted Patient	work space support:	
	bebb	WORK SPACE SUPPORT: ABLUTION: PATIENT: Female	PATIENT: Female	work space support:	
	bebba	WORK SPACE SUPPORT: ABLUTION: PATIENT: FEMALE: Toilet Patient	Toilet Female Patient	work space support:	
	bebbb	WORK SPACE SUPPORT: ABLUTION: PATIENT: FEMALE: Shower Patient	Shower Female Patient	work space support:	
	bebbb	WORK SPACE SUPPORT: ABLUTION: PATIENT: FEMALE: Shower Patient WORK SPACE SUPPORT: ABLUTION: PATIENT: FEMALE: Shower Assisted Patient			
	bebbd	WORK SPACE SUPPORT: ABLUTION: PATIENT: FEMALE: Shower Assisted Patient WORK SPACE SUPPORT: ABLUTION: PATIENT: FEMALE: Bath Patient	Shower Female Assisted Patient Bath Female Patient	work space support:	
	bebbu	WORK SPACE SUPPORT: ABLUTION: PATIENT: FEMALE: Bath Patient WORK SPACE SUPPORT: ABLUTION: PATIENT: FEMALE: Bath Patient Assisted	Bath Female Patient Assisted	and the second se	
	bebbe	WORK SPACE SUPPORT: ABLUTION: PATIENT: FEMALE: Bath Patient WORK SPACE SUPPORT: ABLUTION: PATIENT: FEMALE: WHB Patient	WHB Female Patient	work space support:	
				work space support:	
	bebbg	WORK SPACE SUPPORT: ABLUTION: PATIENT: FEMALE: Toilet Wheel Chair Acessable Patient	Toilet Female Assisted Patient	work space support:	
	bec	WORK SPACE SUPPORT: ABLUTION: Staff	Staff Ablution	work space support:	
	beca	WORK SPACE SUPPORT: ABLUTION: STAFF: Male	STAFF: Male	work space support:	
	becaa	WORK SPACE SUPPORT: ABLUTION: STAFF: MALE: Toilet Staff	Toilet Male Staff	work space support:	
	becab	WORK SPACE SUPPORT: ABLUTION: STAFF: MALE: Shower Staff	Shower Male Staff	work space support:	
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	bgi	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Kit Store	Kit Room	work space support:	
	bgh	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Store - Equipment (Standard)	Store - Equipment (Standard)	work space support:	3
	bgg	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Condemned Equipment	Condemned Equipment	work space support:	
	bgf	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Bulk Store	Bulk Store	work space support:	
	bge	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Mobile Trolley/ Wheelchair Bay	Mobile Trolley/ Wheelchair Bay	work space support:	
	bgd	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Functional Space - Records	Functional Space - Records	work space support:	
	bgc	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Stock Room	Stock Room	work space support:	
	bgb	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Store - General	Store - General	work space support:	
	bga	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Functional Space - Lockers	Functional Space - Lockers	work space support:	
	bg	WORK SPACE SUPPORT: STORAGE FUNCTIONS	STORAGE	work space support:	
bg		ICE SUPPORT: STORAGE FUNCTIONS Detailed Description	Description	Planning Unit	Area (n
-	bfe	WORK SPACE SUPPORT: CONTROL: Security Search Room	Security Search Room	work space support:	
	bfd	WORK SPACE SUPPORT: CONTROL: Security Point	Security Point	work space support:	
	bfc	WORK SPACE SUPPORT: CONTROL: Security	Security	work space support:	
	bfb	WORK SPACE SUPPORT: CONTROL: Switchboard	Switchboard	work space support:	
	bfa	WORK SPACE SUPPORT: CONTROL: Security Desk	Security Desk	work space support:	
	bf	WORK SPACE SUPPORT: CONTROL	CONTROL	work space support:	
<b>N</b> I	Classification	Detailed Description	Description	Planning Unit	Area (n
bf	WORK SPA	CE SUPPORT: CONTROL			
	bem	WORK SPACE SUPPORT: ABLUTION: Functional Space - Consulting Couch	Functional Space - Consulting C	work space support:	
	bel	WORK SPACE SUPPORT: ABLUTION: Functional Space - Bed	Functional Space - Bed	work space support:	
	bek	WORK SPACE SUPPORT: ABLUTION: Functional Space - Bay	Functional Space - Bay	work space support:	
	bej	WORK SPACE SUPPORT: ABLUTION: Bed Unit Ensuite Paraplegic	Bed Unit Ensuite Paraplegic	work space support:	
	bei	WORK SPACE SUPPORT: ABLUTION: Functional Space - Clinical Wash Hand Basin	Functional Space - Clinical Wash	work space support:	
	beh	WORK SPACE SUPPORT: ABLUTION: Bariatric Shower	Bariatric Shower	work space support:	
	beg	WORK SPACE SUPPORT: ABLUTION: Bariatric Toilet	Bariatric Toilet	work space support:	
	bef	WORK SPACE SUPPORT: ABLUTION: Decontamination Shower	Decontamination Shower	work space support:	
	bee	WORK SPACE SUPPORT: ABLUTION: Bed Unit Ensuite	Bed Unit Ensuite	work space support:	
	bed	WORK SPACE SUPPORT: ABLUTION: Breast Feeding Mothers Room	Breast Feeding Mothers Room	work space support:	
	becbf	WORK SPACE SUPPORT: ABLUTION: STAFF: FEMALE: WHB Staff	WHB Female Staff	work space support:	
	becbe	WORK SPACE SUPPORT: ABLUTION: STAFF: FEMALE: Bath Assisted Staff	Bath Female Assisted Staff	work space support:	
	becbd	WORK SPACE SUPPORT: ABLUTION: STAFF: FEMALE: Bath Staff	Bath Female Staff	work space support:	
	becbc	WORK SPACE SUPPORT: ABLUTION: STAFF: FEMALE: Shower Assisted Staff	Shower Female Assisted Staff	work space support:	
	becbb	WORK SPACE SUPPORT: ABLUTION: STAFF: FEMALE: Shower Staff	Shower Female Staff	work space support:	
	becba	WORK SPACE SUPPORT: ABLUTION: STAFF: FEMALE: Toilet Staff	Toilet Female Staff	work space support:	
	becb	WORK SPACE SUPPORT: ABLUTION: STAFF: Female	STAFF: Female	work space support:	
	becaf	WORK SPACE SUPPORT: ABLUTION: STAFF: MALE: WHB Staff	WHB Male Staff	work space support:	
	becae	WORK SPACE SUPPORT: ABLUTION: STAFF: MALE: Bath Assisted Staff	Bath Male Assisted Staff	work space support:	
	becad	WORK SPACE SUPPORT: ABLUTION: STAFF: MALE: Bath Staff	Bath Male Staff	work space support:	

Health Facility Guides: 3 March 2014 Facility Assembly Schedule Toolkit briefing tool (FAST) [DISCUSSION DRAFT 1.0]



	bja	WORK SPACE SUPPORT: CLEAN ROOM: Clean Room	Clean Room	work space support:	
	bj	WORK SPACE SUPPORT: CLEAN ROOM	CLEAN ROOM	work space support:	
bj		WORK SPACE SUPPORT: CLEAN ROOM Classification Detailed Description		Planning Unit	Area (n
	bia	WORK SPACE SUPPORT: CLEAN UTILITY: Clean Utility	Clean Utility	work space support:	
		WORK SPACE SUPPORT: CLEAN UTILITY	CLEAN UTILITY	work space support:	
	Classifica	NORY CRACE CURRORT, CLEAN LITH ITY		Planning Unit	Area (r
bi		PACE SUPPORT: CLEAN UTILITY			
			and annuba noon	and a share support.	
	bhe	WORK SPACE SUPPORT: CHANGE: Baby Change Room	Baby Change Room	work space support:	
	bhd	WORK SPACE SUPPORT: CHANGE: Gowning Area - Visitors	Gowning Area - Visitors	work space support:	
	bhca	WORK SPACE SUPPORT: CHANGE: STAFF: PHC Staff Change	PHC Staff Change	work space support:	
	bhc	WORK SPACE SUPPORT: CHANGE: Change Cobile Wheelchair Accessible	Change Room Staff	work space support:	
	bhba	WORK SPACE SUPPORT: CHANGE: Change Cubicle Patient WORK SPACE SUPPORT: CHANGE: Change Cubicle Wheelchair Accessible	Change Cubicle Wheelchair Acc	and the second	
	bhb	WORK SPACE SUPPORT: CHANGE: Public/ Visitor WORK SPACE SUPPORT: CHANGE: Change Cubicle Patient	Change Cubicle Patient	work space support:	
	bha	WORK SPACE SUPPORT: CHANGE: Public/ Visitor	Public/ Visitor	work space support:	
	bh	WORK SPACE SUPPORT: CHANGE	Description	Planning Unit work space support:	Area (n
bh		SPACE SUPPORT: CHANGE		Planate Link	
1	bgv	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Store - Medical	Store - Medical	work space support:	
	bgu	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Bay - Portable X-Ray Machine	Bay - Portable X-Ray Machine	work space support:	
	bgt	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Bay - Wheelchair	Bay -Wheelchair	work space support:	
	bgs	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Store Surgical	Store - Surgical	work space support:	
	bgr	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Store - Disaster	Store - Disaster	work space support:	
	bgqb	WORK SPACE SUPPORT: STORAGE FUNCTIONS: STERILE: Store - Sterile Large	Store - Sterile Large	work space support:	
	bgqa	WORK SPACE SUPPORT: STORAGE FUNCTIONS: STERILE: Store - Sterile Small	Store - Sterile Small	work space support:	
	bgq	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Sterile	Sterile	work space support:	
	bgp	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Store - Consumables	Store - Consumables	work space support:	
	bgo	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Store - Stationary	Stationary Store	work space support:	
	bgn	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Equipment Bays	Equipment Bays	work space support:	
	bgm	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Safe	Safe	work space support:	
	bglc	WORK SPACE SUPPORT: STORAGE FUNCTIONS: MEDICINE STORE: Room - Medicine - Large	Room - Medicine - Large	work space support:	
	bglb	WORK SPACE SUPPORT: STORAGE FUNCTIONS: MEDICINE STORE: Room - Medicine - Medium	Room - Medicine - Medium	work space support:	
	bgla	WORK SPACE SUPPORT: STORAGE FUNCTIONS: MEDICINE STORE: Room - Medicine - Small	Room - Medicine - Small	work space support:	
	bgl	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Medicine Store	Medicine Store	work space support:	
	bgk	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Garden Store	Garden Store	work space support:	
	bgj	WORK SPACE SUPPORT: STORAGE FUNCTIONS: Medical Records	Medical Records	work space support:	
	bgia bgib	WORK SPACE SUPPORT: STORAGE FUNCTIONS: KIT STORE: Store - Psychiatric Kit on Ward WORK SPACE SUPPORT: STORAGE FUNCTIONS: KIT STORE: Store - Kit Central (Shared)	Store - Psychiatric Kit on Ward Store - Kit Central (Shared)	work space support: work space support:	



#### INFRASTRUCTUREUNITSUPPORTSYSTEMS(IUSS)PROJECT

bk		SPACE SUPPORT: AMENITIES	122	2 17 2	
	Classificat	tion Detailed Description	Description	Planning Unit	Area (m2
	bk	WORK SPACE SUPPORT: AMENITIES	AMENITIES	work space support:	
	bka	WORK SPACE SUPPORT: AMENITIES: Gymnasium	Gymnasium	work space support:	
	bkb	WORK SPACE SUPPORT: AMENITIES: Creche	Creche	work space support:	
	bkc	WORK SPACE SUPPORT: AMENITIES: First Aid and Medical Station	First Aid and Medical Station	work space support:	
	bkd	WORK SPACE SUPPORT: AMENITIES: Hairdresser	Hairdresser	work space support:	
	bke	WORK SPACE SUPPORT: AMENITIES: Child Play Room/ Area	Child Play Room/ Area	work space support:	
	bkg	WORK SPACE SUPPORT: AMENITIES: Recreational Facilities	<b>Recreational Facilities</b>	work space support:	
	bkh	WORK SPACE SUPPORT: AMENITIES: Shops	Shops	work space support:	
	bki	WORK SPACE SUPPORT: AMENITIES: Library	Library	work space support:	
	bkj	WORK SPACE SUPPORT: AMENITIES: Wash Bay	Wash Bay	work space support:	
	bkk	WORK SPACE SUPPORT: AMENITIES: Lounge	Lounge	work space support:	
	bkka	WORK SPACE SUPPORT: AMENITIES: LOUNGE: Psychiatric Patient Lounge	Psychiatric Patient Lounge	work space support:	2
	bkl	WORK SPACE SUPPORT: AMENITIES: Dining Room	Dining Room	work space support:	
	bkla	WORK SPACE SUPPORT: AMENITIES: DINING ROOM: Psychiatric Patient Dining Room	Psychiatric Patient Dining Room	work space support:	6
	bkm	WORK SPACE SUPPORT: AMENITIES: Bedroom	Bedroom	work space support:	
	bkn	WORK SPACE SUPPORT: AMENITIES: Restroom/ Tea Room/ Pause Area	Restroom/ Tea Room/ Pause Ar	work space support:	1
	bkna	WORK SPACE SUPPORT: AMENITIES: RESTROOM/ TEA ROOM/ PAUSE AREA: Staff Room and Lockers	Staff Room and Lockers	work space support:	1
	bko	WORK SPACE SUPPORT: AMENITIES: Staff Accommodation	Staff Accommodation	work space support:	
	bkp	WORK SPACE SUPPORT: AMENITIES: On Call Room	On Call Room	work space support:	
	bkpa	WORK SPACE SUPPORT: AMENITIES: ON CALL ROOM: Ensuite	On Call Room - Ensuite	work space support:	
	bkq	WORK SPACE SUPPORT: AMENITIES: Wash Bay/ Area	Wash Bay/ Area	work space support:	
	bkr	WORK SPACE SUPPORT: AMENITIES: Chapel	Chapel	work space support:	
	bks	WORK SPACE SUPPORT: AMENITIES: Patient Day Room	Patient Day Room	work space support:	
	bksa	WORK SPACE SUPPORT: AMENITIES: DAY ROOM: Oncology Day Room	Oncology Day Room	work space support:	
	bkt	WORK SPACE SUPPORT: AMENITIES: Cafeteria	Cafeteria	work space support:	
	bku	WORK SPACE SUPPORT: AMENITIES: Visitor Room	Visitor Room	work space support:	
	bkv	WORK SPACE SUPPORT: AMENITIES: Transit Lounge	Transit Lounge	work space support:	
	bkw	WORK SPACE SUPPORT: AMENITIES: Quite Room	Quite Room	work space support:	
	bkx	WORK SPACE SUPPORT: AMENITIES: Bariatric Seating	Bariatric Seating	work space support:	
ы		SPACE SUPPORT: CLEANERS ROOM	Description	Planning Unit	Area (m
				727 14	Area (m
	ы	WORK SPACE SUPPORT: CLEANERS ROOM	CLEANERS ROOM	work space support:	
	bla	WORK SPACE SUPPORT: CLEANERS ROOM: Cleaners Room (Cleaners Closet)	Cleaners Room Option 1	work space support:	
	blb	WORK SPACE SUPPORT: CLEANERS ROOM: Cleaners Room (Cleaners Closet)	Cleaners Room Option 2	work space support:	
	blc	WORK SPACE SUPPORT: CLEANERS ROOM: Cleaners Station	Cleaners Station	work space support:	
bm		SPACE SUPPORT: DIRTY tion Detailed Description	Description	Planning Unit	Area (m
	bm		DIRTY		Area (in
	um	WORK SPACE SUPPORT: DIRTY	DIKTY	work space support:	
ptember	r 2014	Copyright (c) 2004 - 2014 Building Science and Technology, Built Environment	Unit, CSIR		Page 12 of 1

#### INFRASTRUCTUREUNITSUPPORTSYSTEMS(IUSS)PROJECT

	bma bmb	WORK SPACE SUPPORT: DIRTY: Dirty Foyer WORK SPACE SUPPORT: DIRTY: Dirty Receiving	Dirty Foyer Dirty Receiving	work space support: work space support:	
	bmc	WORK SPACE SUPPORT: DIRTY: Dirty Receiving	Dirty Utility	work space support:	
	bmd	WORK SPACE SUPPORT: DIRTY: Dirty Utility (Dirty Linen)	Dirty Utility (Dirty Linen)	work space support:	
	bme	WORK SPACE SUPPORT: DIRTY: Refuse Room	Refuse Room	work space support:	
	bmf	WORK SPACE SUPPORT: DIRTY: Sluice Room	Sluice Room	work space support:	1
	bmg	WORK SPACE SUPPORT: DIRTY: Rinse/ Sluice Area	Rinse/ Sluice Area	work space support:	
	bmh	WORK SPACE SUPPORT: DIRTY: Scrub Room	Scrub Room	work space support:	
bn	WORK SP	ACE SUPPORT: MORTUARY			
	Classificatio	n Detailed Description	Description	Planning Unit	Area (m2
	bn	WORK SPACE SUPPORT: MORTUARY	MORTUARY	work space support:	
	bna	WORK SPACE SUPPORT: MORTUARY: Autopsy Room	Autopsy Room	work space support:	
	bnb	WORK SPACE SUPPORT: MORTUARY: Corpse Area	Corpse Area	work space support:	
	bnc	WORK SPACE SUPPORT: MORTUARY: Corpse Preparation Area	Corpse Receiving Area	work space support:	
	bnd	WORK SPACE SUPPORT: MORTUARY: Corpse Receiving Area	Corpse Receiving Area	work space support:	
	bne	WORK SPACE SUPPORT: MORTUARY: Freezer Room	Freezer Area	work space support:	
	bnf	WORK SPACE SUPPORT: MORTUARY: Grieving Room	Grieving Room	work space support:	
	bng	WORK SPACE SUPPORT: MORTUARY: Trolley Wash	Trolley Wash	work space support:	
	bnh	WORK SPACE SUPPORT: MORTUARY: Vehicle Access	Vehicle Access	work space support:	
	bni	WORK SPACE SUPPORT: MORTUARY: Viewing Room	Viewing Room	work space support:	
3 <u>.</u>	bnj	WORK SPACE SUPPORT: MORTUARY: Body Cold Room	Body Cold Room	work space support:	
bo	WORK SP	ACE SUPPORT: INFORMATION TECHNOLOGY			
	Classificatio	n Detailed Description	Description	Planning Unit	Area (m2
	Classificatio		Description INFORMATION TECHNOLOGY	Planning Unit work space support:	Area (m2
		n Detailed Description			Area (m2
	bo	n Detailed Description WORK SPACE SUPPORT: INFORMATION TECHNOLOGY	INFORMATION TECHNOLOGY	work space support:	Area (m2
bp	bo boa bob	n Detailed Description WORK SPACE SUPPORT: INFORMATION TECHNOLOGY WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room	INFORMATION TECHNOLOGY IT Server Room	work space support: work space support:	
	bo boa bob WORK SP	n Detailed Description WORK SPACE SUPPORT: INFORMATION TECHNOLOGY WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room	INFORMATION TECHNOLOGY IT Server Room	work space support: work space support:	
	bo boa bob WORK SP	n Detailed Description WORK SPACE SUPPORT: INFORMATION TECHNOLOGY WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room ACE SUPPORT: PHARMACY	INFORMATION TECHNOLOGY IT Server Room IT Switch Room	work space support: work space support: work space support:	1
	bo boa bob WORK SPA Classification	n Detailed Description WORK SPACE SUPPORT: INFORMATION TECHNOLOGY WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room ACE SUPPORT: PHARMACY n Detailed Description	INFORMATION TECHNOLOGY IT Server Room IT Switch Room Description	work space support: work space support: work space support: Planning Unit	1
	bo boa bob WORK SPA Classificatio bp	Detailed Description     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room     ACE SUPPORT: PHARMACY     Detailed Description     WORK SPACE SUPPORT: PHARMACY	INFORMATION TECHNOLOGY IT Server Room IT Switch Room Description PHARMACY	work space support: work space support: work space support: Planning Unit work space support:	1
	bo boa bob WORK SP Classification bp bpa	Detailed Description     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room     ACE SUPPORT: PHARMACY     m Detailed Description     WORK SPACE SUPPORT: PHARMACY     WORK SPACE SUPPORT: PHARMACY: Break-up Workspace	INFORMATION TECHNOLOGY IT Server Room IT Switch Room Description PHARMACY Break-up Workspace	work space support: work space support: work space support: Planning Unit work space support: work space support:	1
	bo boa bob WORK SP Classification bp bpa bpb	Detailed Description      WORK SPACE SUPPORT: INFORMATION TECHNOLOGY      WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room      WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room      ACE SUPPORT: PHARMACY      WORK SPACE SUPPORT: PHARMACY: Break-up Workspace      WORK SPACE SUPPORT: PHARMACY: Cold Room	INFORMATION TECHNOLOGY IT Server Room IT Switch Room Description PHARMACY Break-up Workspace Cold Room	work space support: work space support: work space support: Planning Unit work space support: work space support: work space support:	1
	bo boa bob WORK SP. Classification bp bpa bpb bpc	Detailed Description     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room     ACE SUPPORT: PHARMACY     m Detailed Description     WORK SPACE SUPPORT: PHARMACY: Break-up Workspace     WORK SPACE SUPPORT: PHARMACY: Cold Room     WORK SPACE SUPPORT: PHARMACY: Delivery Area - Enclosed	INFORMATION TECHNOLOGY IT Server Room IT Switch Room Description PHARMACY Break-up Workspace Cold Room Delivery Area - Enclosed	work space support: work space support: work space support: Planning Unit work space support: work space support: work space support: work space support:	1
	bo boa bob WORK SP, Classification bp bpa bpb bpc bpd	Detailed Description     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room     ACE SUPPORT: PHARMACY     m Detailed Description     WORK SPACE SUPPORT: PHARMACY: Break-up Workspace     WORK SPACE SUPPORT: PHARMACY: Cold Room     WORK SPACE SUPPORT: PHARMACY: Delivery Area - Enclosed     WORK SPACE SUPPORT: PHARMACY: Dispatch Area - Enclosed	INFORMATION TECHNOLOGY IT Server Room IT Switch Room Description PHARMACY Break-up Workspace Cold Room Delivery Area - Enclosed Dispatch Area - Enclosed	work space support: work space support: work space support: Planning Unit work space support: work space support: work space support: work space support: work space support:	Area (m2
	bo boa bob WORK SP, Classification bp bpa bpb bpc bpd bpe	Detailed Description     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room     ACE SUPPORT: PHARMACY     m Detailed Description     WORK SPACE SUPPORT: PHARMACY: Break-up Workspace     WORK SPACE SUPPORT: PHARMACY: Break-up Workspace     WORK SPACE SUPPORT: PHARMACY: Cold Room     WORK SPACE SUPPORT: PHARMACY: Delivery Area - Enclosed     WORK SPACE SUPPORT: PHARMACY: Delivery Area - Enclosed     WORK SPACE SUPPORT: PHARMACY: Delivery Area - Enclosed     WORK SPACE SUPPORT: PHARMACY: Hospital Dispensary	INFORMATION TECHNOLOGY IT Server Room IT Switch Room Description PHARMACY Break-up Workspace Cold Room Delivery Area - Enclosed Dispatch Area - Enclosed Hospital Dispensary	work space support: work space support: work space support: Planning Unit work space support: work space support: work space support: work space support: work space support: work space support:	Area (m2
	bo boa bob WORK SP, Classificatio bp bpa bpb bpc bpd bpe bpea	h Detailed Description     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room     ACE SUPPORT: PHARMACY     Mork SPACE SUPPORT: PHARMACY     WORK SPACE SUPPORT: PHARMACY: Break-up Workspace     WORK SPACE SUPPORT: PHARMACY: Cold Room     WORK SPACE SUPPORT: PHARMACY: Delivery Area - Enclosed     WORK SPACE SUPPORT: PHARMACY: Dispatch Area - Enclosed     WORK SPACE SUPPORT: PHARMACY: Dispatch Area - Enclosed     WORK SPACE SUPPORT: PHARMACY: Dispatch Area - Enclosed     WORK SPACE SUPPORT: PHARMACY: Dispensary     WORK SPACE SUPPORT: PHARMACY: Dispensary	INFORMATION TECHNOLOGY IT Server Room IT Switch Room Pescription PHARMACY Break-up Workspace Cold Room Delivery Area - Enclosed Dispatch Area - Enclosed Hospital Dispensary Pharmacy Clinic Dispensary	work space support: work space support: work space support: Planning Unit work space support: work space support: work space support: work space support: work space support: work space support: work space support:	Area (m2
	bo boa bob WORK SP. Classification bp bpa bpb bpc bpd bpe bpe bpe bpea bpf	betailed Description      WORK SPACE SUPPORT: INFORMATION TECHNOLOGY      WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room      WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room      ACE SUPPORT: PHARMACY     m Detailed Description      WORK SPACE SUPPORT: PHARMACY: Break-up Workspace      WORK SPACE SUPPORT: PHARMACY: Cold Room      WORK SPACE SUPPORT: PHARMACY: Delivery Area - Enclosed      WORK SPACE SUPPORT: PHARMACY: Dispatch Area - Enclosed      WORK SPACE SUPPORT: PHARMACY: Dispensary      WORK SPACE SUPPORT: PHARMACY: Dispensary      WORK SPACE SUPPORT: PHARMACY: Dispensing - Ward	INFORMATION TECHNOLOGY IT Server Room IT Switch Room Description PHARMACY Break-up Workspace Cold Room Delivery Area - Enclosed Dispatch Area - Enclosed Hospital Dispensary Pharmacy Clinic Dispensary Dispensing - Ward	work space support: work space support: work space support: Planning Unit work space support: work space support:	Area (m2
	bo boa bob Classification bp bpa bpb bpc bpd bpe bpe bpe bpe bpf bpg	betailed Description      WORK SPACE SUPPORT: INFORMATION TECHNOLOGY      WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room      WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room      ACE SUPPORT: PHARMACY     m Detailed Description      WORK SPACE SUPPORT: PHARMACY: Break-up Workspace      WORK SPACE SUPPORT: PHARMACY: Cold Room      WORK SPACE SUPPORT: PHARMACY: Dispatch Area - Enclosed      WORK SPACE SUPPORT: PHARMACY: Dispetsing Dispensary      WORK SPACE SUPPORT: PHARMACY: Dispetsing - Ward      WORK SPACE SUPPORT: PHARMACY: Dispensing - Ward      WORK SPACE SUPPORT: PHARMACY: Holding Area	INFORMATION TECHNOLOGY IT Server Room IT Switch Room Description PHARMACY Break-up Workspace Cold Room Delivery Area - Enclosed Dispatch Area - Enclosed Hospital Dispensary Pharmacy Clinic Dispensary Dispensing - Ward Holding Area	work space support: work space support: work space support: Planning Unit work space support: work space support:	Area (m2
	bo boa bob Classification bp bpa bpb bpc bpd bpc bpd bpe bpea bpf bpg bpg bph	betailed Description     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Server Room     WORK SPACE SUPPORT: INFORMATION TECHNOLOGY: IT Switch Room     ACE SUPPORT: PHARMACY     m Detailed Description     WORK SPACE SUPPORT: PHARMACY: Break-up Workspace     WORK SPACE SUPPORT: PHARMACY: Cold Room     WORK SPACE SUPPORT: PHARMACY: Delivery Area - Enclosed     WORK SPACE SUPPORT: PHARMACY: Dispatch Area - Enclosed     WORK SPACE SUPPORT: PHARMACY: Dispatch Area - Enclosed     WORK SPACE SUPPORT: PHARMACY: Dispensary     WORK SPACE SUPPORT: PHARMACY: Dispensing - Ward     WORK SPACE SUPPORT: PHARMACY: Holding Area     WORK SPACE SUPPORT: PHARMACY: Holding Area	INFORMATION TECHNOLOGY IT Server Room IT Switch Room Description PHARMACY Break-up Workspace Cold Room Delivery Area - Enclosed Dispatch Area - Enclosed Hospital Dispensary Pharmacy Clinic Dispensary Dispensing - Ward Holding Area Manufacturing - Dry	work space support: work space support: work space support: Planning Unit work space support: work space support:	Area (m2

#### INFRASTRUCTUREUNITSUPPORTSYSTEMS(IUSS)PROJECT

	bpk	WORK SPACE SUPPORT: PHARMACY: Transito In	Transito In	work space support:		
	bpl	WORK SPACE SUPPORT: PHARMACY: Free Standing Fridges	Free Standing Fridges	work space support:		
	bpm	WORK SPACE SUPPORT: PHARMACY: Store Pharmacy	Store Pharmacy	work space support:		
	bpn	WORK SPACE SUPPORT: PHARMACY: IV Fluid Store	IV Fluid Store	work space support:		
bq	WORKS	SPACE SUPPORT: KITCHEN				
	Classificat	tion Detailed Description	Description	Planning Unit	Area (m2	
	bq	WORK SPACE SUPPORT: KITCHEN	KITCHEN	work space support:		
	bqa	WORK SPACE SUPPORT: KITCHEN: Kitchen Ward	Kitchen Ward	work space support:	1	
	bqb	WORK SPACE SUPPORT: KITCHEN: Kitchenette/ Small Kitchen	Kitchenette/ Small Kitchen	work space support:		
	bqc	WORK SPACE SUPPORT: KITCHEN: Milk Kitchen	Milk kitchen	work space support:	3	
	bqca	WORK SPACE SUPPORT: KITCHEN: MILK KITCHEN: Dispatch Counter	MILK KITCHEN: Dispatch Counte	work space support:		
	bqd	WORK SPACE SUPPORT: KITCHEN: Cooking/ Cooking Island	Cooking/ Cooking Island	work space support:		
	bge	WORK SPACE SUPPORT: KITCHEN: Preparation Area	Preparation Area	work space support:		
	bqf	WORK SPACE SUPPORT: KITCHEN: Wash Area	Wash Area	work space support:		
	bqg	WORK SPACE SUPPORT: KITCHEN: Vegetable Pre-prep	Vegetable Pre-prep	work space support:		
	bgh	WORK SPACE SUPPORT: KITCHEN: Pot Wash	Pot Wash	work space support:		
	bqi	WORK SPACE SUPPORT: KITCHEN: Wash-up	Wash-up	work space support:		
	bqj	WORK SPACE SUPPORT: KITCHEN: Trolley Wash	Trolley Wash	work space support:		
	bgk	WORK SPACE SUPPORT: KITCHEN: Food Trolley Park/ Bay	Food Trolley Park/ Bay	work space support:		
	bql	WORK SPACE SUPPORT: KITCHEN: Food Preparation	Food Preparation	work space support:		
	bqm	WORK SPACE SUPPORT: KITCHEN: Sandwich Preparation	Sandwich Preparation	work space support:		
	bqn	WORK SPACE SUPPORT: KITCHEN: General Preparation	General Preparation	work space support:		
	bqo	WORK SPACE SUPPORT: KITCHEN: Meat/ Fish Preparation	Meat/ Fish Preparation	work space support:		
	bqp	WORK SPACE SUPPORT: KITCHEN: Vegetable Preparation	Vegetable Preparation	work space support:		
	bqq	WORK SPACE SUPPORT: KITCHEN: Finishing/ Plating	Finishing/ Plating	work space support:		
	bgr	WORK SPACE SUPPORT: KITCHEN: Food Store	Food Store	work space support:		
	bqs	WORK SPACE SUPPORT: KITCHEN: Groceries Store	Groceries Store	work space support:		
	bgt	WORK SPACE SUPPORT: KITCHEN: Dry Store	Dry Store	work space support:		
	bqu	WORK SPACE SUPPORT: KITCHEN: Cold Room	Cold Room	work space support:		
	bgv	WORK SPACE SUPPORT: KITCHEN: Freezer Room	Freezer Room	work space support:		
	bgw	WORK SPACE SUPPORT: KITCHEN: Goods Receiving	Goods Receiving	work space support:		
	bqx	WORK SPACE SUPPORT: KITCHEN: Holding Area	Holding Area	work space support:		
	bqy	WORK SPACE SUPPORT: KITCHEN: Day Store Room	Day Store Room	work space support:		
br	WORK SPACE SUPPORT: LABORATORY					
	Classificat	tion Detailed Description	Description	Planning Unit	Area (m	
	br	WORK SPACE SUPPORT: LABORATORY	LABORATORY	work space support:		
	bra	WORK SPACE SUPPORT: LABORATORY: Analysis Area	Analysis Area	work space support:		
	brb	WORK SPACE SUPPORT: LABORATORY: Blood Bank	Blood Bank	work space support:		
	brc	WORK SPACE SUPPORT: LABORATORY: Blood Donating Area	Blood Donating Area	work space support:		
	brd	WORK SPACE SUPPORT: LABORATORY: Blood Drawing Area	Blood Drawing Area	work space support:		
	bre	WORK SPACE SUPPORT: LABORATORY: Blood Products	Blood Products	work space support:		



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	brf	WORK SPACE SUPPORT: LABORATORY: Cool Room	Cool Room	work space support:		
	brg	WORK SPACE SUPPORT: LABORATORY: Gas Bank	Gas Bank	work space support:		
	brh	WORK SPACE SUPPORT: LABORATORY: In-vitro Area	In-vitro Area	work space support:		
	bri	WORK SPACE SUPPORT: LABORATORY: Laminar Flow Room	Laminar Flow Room	work space support:		
	brj	WORK SPACE SUPPORT: LABORATORY: Sample Desk	Sample Desk	work space support:		
	brk	WORK SPACE SUPPORT: LABORATORY: Washing-up Area	Washing-up Area	work space support:		
	brl	WORK SPACE SUPPORT: LABORATORY: Fluorescence Room	Fluorescence Room	work space support:		
	brm	WORK SPACE SUPPORT: LABORATORY: Microscope	Microscope	work space support:		
	brn	WORK SPACE SUPPORT: LABORATORY: Dental Laboratory	Dental Laboratory	work space support:		
bs	WORK S	PACE SUPPORT: LAUNDRY				
	Classificat	ion Detailed Description	Description	Planning Unit	Area (m	
	bs	WORK SPACE SUPPORT: LAUNDRY	LAUNDRY	work space support:		
	bsa	WORK SPACE SUPPORT: LAUNDRY: Dispatch Area	Dispatch Area	work space support:		
	bsb	WORK SPACE SUPPORT: LAUNDRY: Folding Tables	Folding Tables	work space support:		
	bsc	WORK SPACE SUPPORT: LAUNDRY: Ironing Area	Ironing Area	work space support:		
	bsd	WORK SPACE SUPPORT: LAUNDRY: Needlework Room	Needlework Room	work space support:		
	bse	WORK SPACE SUPPORT: LAUNDRY: Receiving Area	Receiving Area	work space support:		
	bsf	WORK SPACE SUPPORT: LAUNDRY: Sorting Area	Sorting Area	work space support:		
	bsg	WORK SPACE SUPPORT: LAUNDRY: Washing	Washing	work space support:		
	bsh	WORK SPACE SUPPORT: LAUNDRY: Store Linen (Standard)	Store Linen (Standard)	work space support:		
	bsha	WORK SPACE SUPPORT: LAUNDRY: STORE LINEN: Store Linen (Large)	Store Linen (Large)	work space support:		
	bsi	WORK SPACE SUPPORT: LAUNDRY: Dirty Linen/ Laundry	Dirty Linen/ Laundry	work space support:		
	bsj	WORK SPACE SUPPORT: LAUNDRY: Trolley Wash	Trolley Wash	work space support:		
	bsk	WORK SPACE SUPPORT: LAUNDRY: Sewing Area	Sewing Area	work space support:		
	bsl	WORK SPACE SUPPORT: LAUNDRY: Patient Laundry/ Laundry Room	Patient Laundry/ Laundry Room	work space support:		
	bsm	WORK SPACE SUPPORT: LAUNDRY: Tumble Dryers	Tumble Dryers	work space support:		
bt	WORK SPACE SUPPORT: CENTRAL STORES					
	Classificat	ion Detailed Description	Description	Planning Unit	Area (m	
	bt	WORK SPACE SUPPORT: CENTRAL STORES	CENTRAL STORES	work space support:		
	bta	WORK SPACE SUPPORT: CENTRAL STORES: Break-up/ Packing Area	Break-up/ Packing Area	work space support:		
	btb	WORK SPACE SUPPORT: CENTRAL STORES: Dispatch	Dispatch	work space support:		
	btc	WORK SPACE SUPPORT: CENTRAL STORES: Receiving Area	Receiving Area	work space support:		
	btd	WORK SPACE SUPPORT: CENTRAL STORES: Transit In	Transit In	work space support:		
	bte	WORK SPACE SUPPORT: CENTRAL STORES: Transit Out	Transit Out	work space support:		
	btf	WORK SPACE SUPPORT: CENTRAL STORES: Trolley Holding	Trolley Holding	work space support:		
	btg	WORK SPACE SUPPORT: CENTRAL STORES: LINEN BANK/ (BULK LINEN STORE)	LINEN BANK	work space support:		
	btga	WORK SPACE SUPPORT: CENTRAL STORES: LINEN BANK/ (BULK LINEN STORE): Receiving Area	Receiving Area	work space support:		
	btgb	WORK SPACE SUPPORT: CENTRAL STORES: LINEN BANK/ (BULK LINEN STORE): Needlework Room	Needlework Room	work space support:		
	btgc	WORK SPACE SUPPORT: CENTRAL STORES: LINEN BANK/ (BULK LINEN STORE): Sorting Area	Sorting Area	work space support:		
		WORK SPACE SUPPORT, CENTRAL STORES, UNEN RANK/ (RULK UNEN STORE), Tealley Wesh Ray	Trolley Wash Bay	work space support:		
	btgd	WORK SPACE SUPPORT: CENTRAL STORES: LINEN BANK/ (BULK LINEN STORE): Trolley Wash Bay				
	btgd btge	WORK SPACE SUPPORT: CENTRAL STORES: LINEN BANK/ (BULK LINEN STORE): ITOMEY Wash Bay WORK SPACE SUPPORT: CENTRAL STORES: LINEN BANK/ (BULK LINEN STORE): Dispatch	Dispatch	work space support:		

Health Facility Guides: 3 March 2014 Facility Assembly Schedule Toolkit briefing tool (FAST) [DISCUSSION DRAFT 1.0] 54

bu										
	Classificati	on Detailed Description	Description	Planning Unit	Area (m2					
	bu	WORK SPACE SUPPORT: WORKSHOPS	WORKSHOPS	work space support:						
	bua	WORK SPACE SUPPORT: WORKSHOPS: Electrical Workshop	Electrical Workshop	work space support:						
	bub	WORK SPACE SUPPORT: WORKSHOPS: Mechanical Workshop	Mechanical Workshop	work space support:						
	buc	WORK SPACE SUPPORT: WORKSHOPS: Casting Room	Casting Room	work space support:						
	bud	WORK SPACE SUPPORT: WORKSHOPS: Equipment Pool Unit	Equipment Pool Unit	work space support:						
	bue	WORK SPACE SUPPORT: WORKSHOPS: Decontamination Area	Decontamination Area	work space support:						
	buf	WORK SPACE SUPPORT: WORKSHOPS: Key Manufacturing	Key Manufacturing	work space support:						
	bug	WORK SPACE SUPPORT: WORKSHOPS: Machine Area	Machine Area	work space support:						
	buh	WORK SPACE SUPPORT: WORKSHOPS: Maintenance Area	Maintenance Area	work space support:						
	bui	WORK SPACE SUPPORT: WORKSHOPS: Workbench Area	Workbench Area	work space support:						
	buj	WORK SPACE SUPPORT: WORKSHOPS: Othotics & Prosthetics	Othotics & Prosthetics	work space support:						
	buk	WORK SPACE SUPPORT: WORKSHOPS: Electronic	Electronic	work space support:						
	bul	WORK SPACE SUPPORT: WORKSHOPS: Wet Area (Infusion Pump Testing)	Wet Area (Infusion Pump Testin	work space support:						
	bum	WORK SPACE SUPPORT: WORKSHOPS: Anaesthesia & Ventilation	Anaesthesia & Ventilation	work space support:						
by	WORK SI	PACE SUPPORT: PARKING								
		on Detailed Description	Description	Planning Unit	Area (m2					
	bv	WORK SPACE SUPPORT: PARKING	PARKING	work space support:						
	bva	WORK SPACE SUPPORT: PARKING: Parking Area	Parking Area	work space support:						
	bvb	WORK SPACE SUPPORT: PARKING: Drivers Facilities	Drivers Facilities	work space support:						
	bvc	WORK SPACE SUPPORT: PARKING: Car Wash	Car Wash	work space support:						
	bvd	WORK SPACE SUPPORT: PARKING: Outside Parking Area	Outside Parking Area	work space support:						
	bve	WORK SPACE SUPPORT: PARKING: Garage	Garage	work space support:						
CO	ORE									
c	CORE									
	Classificati	on Detailed Description	Description	Planning Unit	Area (m2					
	c	CORE	CORE	core:						
са	CORE: CI	RCULATION								
	Classificati	on Detailed Description	Description	Planning Unit	Area (m2					
	са	CORE: CIRCULATION	CIRCULATION	core:						
	caa	CORE: CIRCULATION: HORIZONTAL	HORIZONTAL	core:						
	caaa	CORE: CIRCULATION: HORIZONTAL: ENTRANCE	ENTRANCE	core:						
	caaaa	CORE: CIRCULATION: HORIZONTAL: ENTRANCE: Foyer	Foyer	core:						
	caaab	CORE: CIRCULATION: HORIZONTAL: ENTRANCE: Pedestrian Entrances and Circulation	Pedestrian Entrances and Circul	core:						
	caaac	CORE: CIRCULATION: HORIZONTAL: ENTRANCE: Car parking Entrances	Car parking Entrances	core:						
	SharkAtt 20	CORE: CIRCULATION: HORIZONTAL: ENTRANCE: Goods and Service Entrances	Goods and Service Entrances	core:						
	caaad	cone. encountrie entrance. doods and berrice entrances		core						
	caaad	CORE: CIRCULATION: HORIZONTAL: ENTRANCE: Goods Distribution	Goods Distribution	core:						

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	cbaaa	CORE: TECHNICAL SUPPORT: PLANT ROOM: TELECOMMUNICATIONS: PABX Room	PABX Room	core: plant	
	cbaa	CORE: TECHNICAL SUPPORT: PLANT ROOM: TELECOMMUNICATIONS	TELECOMMUNICATIONS	core: plant	
	cba	CORE: TECHNICAL SUPPORT: PLANT ROOM	PLANT ROOM	core: plant	
	cb	CORE: TECHNICAL SUPPORT	TECHNICAL SUPPORT	core:	
cb		ECHNICAL SUPPORT ion Detailed Description	Description	Planning Unit	Area (m
	cabi	CORE: CIRCULATION: VERTICAL: Tube Station	Tube Station	core:	
	cabh	CORE: CIRCULATION: VERTICAL: Dumb Waiter	Dumb Waiter	core:	
	cabg	CORE: CIRCULATION: VERTICAL: Courtyard	Courtyard	core:	
	cabf	CORE: CIRCULATION: VERTICAL: Shaft/ Light Well	Shaft/ Light Well	core:	
	cabe	CORE: CIRCULATION: VERTICAL: Ramp	Ramp	core:	
	cabd	CORE: CIRCULATION: VERTICAL: Atrium	Atrium	core:	
	cabc	CORE: CIRCULATION: VERTICAL: Lift well	Lift well	core: primary circulation	
	cabb	CORE: CIRCULATION: VERTICAL: Escalator	Escalator	core:	
	caba	CORE: CIRCULATION: VERTICAL: Staircase	Staircase	core: primary circulation	
	cab	CORE: CIRCULATION: VERTICAL	VERTICAL	core:	
	caar	CORE: CIRCULATION: HORIZONTAL: Outside Area	Outside Area	core:	
	caaq	CORE: CIRCULATION: HORIZONTAL: Open Area	Open Area	core:	
	caap	CORE: CIRCULATION: HORIZONTAL: Air Lock	Air Lock	core:	
	caao	CORE: CIRCULATION: HORIZONTAL: Isolation Lobby	Isolation Lobby	core:	
	caan	CORE: CIRCULATION: HORIZONTAL: Fire Lobby	Fire Lobby	core:	
	caam	CORE: CIRCULATION: HORIZONTAL: Entrance Lobby/ Lobby	Entrance Lobby/ Lobby	core:	
	caal	CORE: CIRCULATION: HORIZONTAL: Loading Area/ Delivery Yard	Loading Area/ Delivery Yard	core:	
	caaka	CORE: CIRCULATION: HORIZONTAL: WAITING/ VISITING AREA: Sub-waiting Area	Functional Space - Sub-waiting	core: waiting	
	caak	CORE: CIRCULATION: HORIZONTAL: Waiting/ Visiting Area	Functional Space - Waiting	core: waiting	
	caajb	CORE: CIRCULATION: HORIZONTAL: WALKWAY: Uncovered	Uncovered	core:	
	caaja	CORE: CIRCULATION: HORIZONTAL: WALKWAY: Covered	Covered	core:	
	caaj	CORE: CIRCULATION: HORIZONTAL: WALKWAY	WALKWAY	core:	
	caai	CORE: CIRCULATION: HORIZONTAL: Lift lobby	Lift lobby	core:	
	caah	CORE: CIRCULATION: HORIZONTAL: Stoep	Stoep	core:	
	caag	CORE: CIRCULATION: HORIZONTAL: Secondary	Secondary Circulation	core: secondary circulation	n
	caaf	CORE: CIRCULATION: HORIZONTAL: Primary	Primary Circulation	core: primary circulation	
	caae	CORE: CIRCULATION: HORIZONTAL: Parking	Parking	core:	
	caad	CORE: CIRCULATION: HORIZONTAL: Bridge	Bridge	core:	
	caac	CORE: CIRCULATION: HORIZONTAL: Covered Walkway	Covered Walkway	core:	
	caab	CORE: CIRCULATION: HORIZONTAL: Passage or Corridor	Passage or Corridor	core:	
	caaak	CORE: CIRCULATION: HORIZONTAL: ENTRANCE: Guard House	Guard House	core:	
	caaaj	CORE: CIRCULATION: HORIZONTAL: ENTRANCE: Ward Entrance	Ward Entrance	core:	
	caaai	CORE: CIRCULATION: HORIZONTAL: ENTRANCE: Drop-off Area	Drop-off Area	core:	
	caaah	CORE: CIRCULATION: HORIZONTAL: ENTRANCE: Off Load Area - Patient - P4	Off Load Area - Patient - P4	core:	
	caaaf caaag	CORE: CIRCULATION: HORIZONTAL: ENTRANCE: Municipal Service Points CORE: CIRCULATION: HORIZONTAL: ENTRANCE: Public Interface	Municipal Service Points Public Interface	core:	

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	cbab	CORE: TECHNICAL SUPPORT: PLANT ROOM: ELECTRICAL	ELECTRICAL	core: plant					
	cbaba	CORE: TECHNICAL SUPPORT: PLANT ROOM: ELECTRICAL: Sub-station	Sub-station	core: plant					
	cbabb	CORE: TECHNICAL SUPPORT: PLANT ROOM: ELECTRICAL: Transformer room	Transformer room	core: plant					
	cbabc	CORE: TECHNICAL SUPPORT: PLANT ROOM: ELECTRICAL: Lift motor room	Lift motor room	core: plant					
	cbabd	CORE: TECHNICAL SUPPORT: PLANT ROOM: ELECTRICAL: UPS/ Standbye Room	UPS/ Standbye Room	core: plant					
	cbabe	CORE: TECHNICAL SUPPORT: PLANT ROOM: ELECTRICAL: High Voltage (HV) Room	High Voltage (HV) Room	core: plant					
	cbabf	CORE: TECHNICAL SUPPORT: PLANT ROOM: ELECTRICAL: Transformer/ Switchgear (TX) Room	Transformer/ Switchgear (TX) R	core: plant					
	cbabg	CORE: TECHNICAL SUPPORT: PLANT ROOM: ELECTRICAL: Medium Low Voltage (MLV) Room	Medium Low Voltage (MLV) Ro	core: plant					
	cbabh	CORE: TECHNICAL SUPPORT: PLANT ROOM: ELECTRICAL: Generator Room	Generator Room	core: plant					
	cbac	CORE: TECHNICAL SUPPORT: PLANT ROOM: MECHANICAL	MECHANICAL	core: plant					
	cbaca	CORE: TECHNICAL SUPPORT: PLANT ROOM: MECHANICAL: Central air-conditioning plant room	Central air-conditioning plant ro	core: plant					
	cbad	CORE: TECHNICAL SUPPORT: PLANT ROOM: DUCTS	DUCTS	core: plant					
	cbada	CORE: TECHNICAL SUPPORT: PLANT ROOM: DUCTS Vertical duct	Vertical Duct	core: plant					
	cbae	CORE: TECHNICAL SUPPORT: PLANT ROOM: Cold Water Storage	Cold Water Storafe	core: plant					
	cbaf	CORE: TECHNICAL SUPPORT: PLANT ROOM: Gas Storage/ Medical Gas	Gas Storage/ Medical Gas	core: plant					
	cbag	CORE: TECHNICAL SUPPORT: PLANT ROOM: Fire Hose Reel	Fire Hose Reel	core: plant					
	cbah	CORE: TECHNICAL SUPPORT: PLANT ROOM: Vacuum	Vacuum	core: plant					
	cbai	CORE: TECHNICAL SUPPORT: PLANT ROOM: Heating	Heating	core: plant					
	cbaj	CORE: TECHNICAL SUPPORT: PLANT ROOM: Hot Water Room	Hot Water Room	core: plant					
	cbak	CORE: TECHNICAL SUPPORT: PLANT ROOM: Fuel Storage	Fuel Storage	core: plant					
	cbal	CORE: TECHNICAL SUPPORT: PLANT ROOM: Sterile Water Plant	Sterile Water Plant	core: plant					
	cbb	CORE: TECHNICAL SUPPORT: Filling Station	Filling Station	core:					
	cbc	CORE: TECHNICAL SUPPORT: Interstitial Space	Interstitial Space	core:					
cc	c CORE: FACILITIES MANAGEMENT								
	Classification Detailed Description		Description	Planning Unit	Area (				
	cc	CORE: FACILITIES MANAGEMENT	FACILITIES MANAGEMENT	core:					
	cca	CORE: FACILITIES MANAGEMENT: Physical Security	Physical Security	core:					
	ccc	CORE: FACILITIES MANAGEMENT: Building Maintenance	Building Maintenance	core:					
	ccd	CORE: FACILITIES MANAGEMENT: Non Clerical Staff Facilities	Non Clerical Staff Facilities	core:					
	cce	CORE: FACILITIES MANAGEMENT: Facilities Stores	Facilities Stores	core:					
	ccf	CORE: FACILITIES MANAGEMENT: Rest Rooms	Rest Rooms	core:					
	cci	CORE: FACILITIES MANAGEMENT: Building Management System	Building Management Systems	core:					
		CORE: FACILITIES MANAGEMENT: Engineering & Maintenance Services	Engineering & Maintenance Ser						
	ccj		CORE: VOID AREA						
cd									
cd	CORE: V		Description	Planning Unit	Area (				
cd	CORE: V	OID AREA		Planning Unit	Area (				
cd	CORE: V Classificat	OID AREA ion Detailed Description	Description	200000000 <del>7</del> 0000700	Area (				
	CORE: V Classificat cd cda	OID AREA ion Detailed Description CORE: VOID AREA CORE: VOID AREA: Void Area	Description VOID AREA	core:	Area (				
cd ce	CORE: V Classificat cd cda CORE: W	OID AREA ion Detailed Description CORE: VOID AREA	Description VOID AREA	core:					
	CORE: V Classificat cd cda CORE: W	OID AREA ion Detailed Description CORE: VOID AREA CORE: VOID AREA: Void Area VASTE MANAGEMENT	Description VOID AREA Void Area	core: core:	Area () Area ()				



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			Copyright (c) 2004 - 2014 Building Science and Tech			Page 19 of 19
		db	STRUCTURE: COLUMNS	COLUMNS	structure:	
	dc		E: COLUMNS Detailed Description	Description	Planning Unit	Area (m2)
		da	STRUCTURE: WALL	WALL	structure:	
	da	STRUCTUR Classification	E: WALL Detailed Description	Description	Planning Unit	Area (m2)
	. <u> </u>	d	STRUCTURE	STRUCTURE	structure:	
	d	STRUCTUR Classification	tE Detailed Description	Description	Planning Unit	Area (m2)
ł	STRU	JCTURE				
		cei	CORE: WASTE MANAGEMENT: Hazardous Waste	Hazardous Waste	core:	
		ceh	CORE: WASTE MANAGEMENT: Waste Disposal Room	Waste Disposal System - P4	core:	
		ceg	CORE: WASTE MANAGEMENT: Kitchen Waste	Kitchen Waste	core:	
		cef	CORE: WASTE MANAGEMENT: Nuclear Waste CORE: WASTE MANAGEMENT: Biomedical Waste	Biomedical Waste	core: core:	
		ced	CORE: WASTE MANAGEMENT: Dispatch Dirty	Dispatch Dirty Nuclear Waste	core:	
		cec	CORE: WASTE MANAGEMENT: Medical Waste	Medical Waste	core:	
		ceb	CORE: WASTE MANAGEMENT: General Waste	General Waste	core:	



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## **APPENDIX D – DEPARTMENT CLASSIFICATION**

A	OUT	PATIENT	SERVICES	
	A	OUTPAT	IENT SERVICES	
		А	OUTPATIENT SERVICES	
	AA	Outpatie	ent Services: Outpatient Unit	
		AA	Outpatient Services: Outpatient Unit	
		AAA	Outpatient Services: Outpatient Unit: Outpatient Unit: OPD	
		AAB	Outpatient Services: Outpatient Unit: Outpatient Unit: Gynaecology/ Obstetrics	
		AAC	Outpatient Services: Outpatient Unit: Family Medicine	
		AAD	Outpatient Services: Outpatient Unit: Renal	
	AB	Outpatie	ent Services: Emergency Unit	
		AB	Outpatient Services: Emergency Unit	
		ABA	Outpatient Services: Emergency Unit: Emergency Unit	
		ABB	Outpatient Services: Emergency Unit: Observation	
		ABC	Outpatient Services: Emergency Unit: Crisis	
		ABD	Outpatient Services: Emergency Unit: Victim Support Unit	
	AC	Outpatie	ent Services: Day Surgery	
		AC	Outpatient Services: Day Surgery	
		ACA	Outpatient Services: Day Surgery: Day Theatre	
		ACB	Outpatient Services: Day Surgery: Scope Unit (GIT)	
в	INPA	TIENT S	ERVICES	
	в	INPATIE	NT SERVICES	
	2508	B	INPATIENT SERVICES	
	BA	Inpatien	t Services: General	
		BA	Inpatient Services: General	
		BAA	Inpatient Services: General: General Ward	
	BB	Inpatien	t Services: Medical	
		BB	Inpatient Services: Medical	
		BBA	Inpatient Services: Medical: Medical Ward	
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	BBB	Inpatient Services: Medical: TB Ward
	BBC	Inpatient Services: Medical: Dermatology Ward
	BBD	Inpatient Services: Medical: Endocrine/ Diabetes ward
	BBE	Inpatient Services: Medical: Geriatrics Ward
	BBF	Inpatient Services: Medical: Haematology Ward
	BBG	Inpatient Services: Medical: Gastro-enterology Ward
	BBH	Inpatient Services: Medical: Emergency Ward
	BBI	Inpatient Services: Medical: Neurology Ward
	BBJ	Inpatient Services: Medical: Respiratory/ Pulmonary Function
	BBK	Inpatient Services: Medical: Rheumatology
	BBL	Inpatient Services: Medical: Cardiology Ward (large regional Hospital)
	BED	Inpatient Services: Obstetrics: Kangaroo Ward
ВС	Inpatient	Services: Surgical
	BC	Inpatient Services: Surgical
	BCA	Inpatient Services: Surgical: Surgical Ward
	BCB	Inpatient Services: Surgical: ENT/ Head and Neck Ward
	BCC	Inpatient Services: Surgical: Orthopaedic Ward
	BCD	Inpatient Services: Surgical: Plastic Surgery/ Dental/ Maxilla Facial Ward
	BCE	Inpatient Services: Surgical: Trauma
	BCEA	Inpatient Services: Surgical: Trauma: Trauma Unit
	BCEB	Inpatient Services: Surgical: Trauma Unit: Trauma Theatres
	BCEC	Inpatient Services: Surgical: Trauma Unit: Trauma ICU/ HC
	BCED	Inpatient Services: Surgical: Trauma Unit: Trauma Ward
	BCF	Inpatient Services: Surgical: Neurosurgery Ward
	BCG	Inpatient Services: Surgical: Spinal Rehabilitation Unit
	BCH	Inpatient Services: Surgical: Gynaecology Ward
	BCI	Inpatient Services: Surgical: Protective Isolation Wards/ Rooms in Other Wards/ Paed
	BCIA	Inpatient Services: Surgical: Protective Isolation Wards/ Rooms in Other Wards/ Paed: Haematology
	BCIB	Inpatient Services: Surgical: Protective Isolation Wards/ Rooms in Other Wards/ Paed: Radiation Protection
	BCIC	Inpatient Services: Surgical: Protective Isolation Wards/ Rooms in Other Wards/ Paed: Chemotherapy
	BCJ	Inpatient Services: Surgical: Ophthalmology (Adult and Paed)
	BCK	Inpatient Services: Surgical: Paediatric Surgery Ward
	BCL	Inpatient Services: Surgical: Pain Unit
	BCM	Inpatient Services: Surgical: Cardiology Ward
BD	Inpatient	Services: Paediatrics
	BD	Inpatient Services: Paediatrics
	BDA	Inpatient Services: Paediatrics: Paediatric Ward
	BDB	Inpatient Services: Paediatrics: Rehydration
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	BE	Inpatient	Services: Obstetrics	
		BE	Inpatient Services: Obstetrics	
		BEA	Inpatient Services: Obstetrics: Ante-natal Ward	
		BEB	Inpatient Services: Obstetrics: Delivery/ Labour Ward	
		BEC	Inpatient Services: Obstetrics: Post-natal Ward	
	BF	Inpatient	Services: Intensive and High Care	
		BF	Inpatient Services: Intensive and High Care	
		BFA	Inpatient Services: Intensive and High Care: Multi-disciplinary Adult ICU	
		BFB	Inpatient Services: Intensive and High Care: Paediatric ICU/ HC	
		BFC	Inpatient Services: Intensive and High Care: Coronary Care	
		BFD	Inpatient Services: Intensive and High Care: High Care Adult	
		BFE	Inpatient Services: Intensive and High Care: High Care Paediatrics	
		BFF	Inpatient Services: Intensive and High Care: Neonatal ICU and HC	
		BFG	Inpatient Services: Intensive and High Care: Solid Organ Transplant ICU	
		BFH	Inpatient Services: Intensive and High Care: Bone Marrow Transplant ICU in Haematology Ward	
		BFI	Inpatient Services: Intensive and High Care: Burns ICU in Burns Unit	
		BFJ	Inpatient Services: Intensive and High Care: Burns ICU in Burns Unit	
		BFK	Inpatient Services: Intensive and High Care: Source Isolation ICU	
		BFL	Inpatient Services: Intensive and High Care: Adult/ Paediatric (theatre/ICU/ HC/ Ward)	
		BFM	Inpatient Services: Intensive and High Care: Radiation decontamination Theatre and Unit	
	BG	Inpatient	Services: Psychiatry	
		BG	Inpatient Services: Psychiatry	
		BGA	Inpatient Services: Psychiatry: Acute Psychiatric Ward	
		BGB	Inpatient Services: Psychiatry: 72 Hour Observation Unit	
с	CLIN	ICAL SUI	PPORT SERVICES	
	С	CLINICAL	SUPPORT SERVICES	
		с	CLINICAL SUPPORT SERVICES	
	CA	Clinical S	upport Services: Diagnostic Radiology	
		CA	Clinical Support Services: Diagnostic Radiology	
	CB	Clinical S	upport Services: Radiology: Radiation Oncology (Radio Therapy)	
		CB	Clinical Support Services: Radiology: Radiation Oncology (Radio Therapy)	
	СС	Clinical S	upport Services: Nuclear Medicine	
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	сс	Clinical Support Services: Nuclear Medicine		
CD	<b>Clinical S</b>	upport Services: Operating Theatres		
	CD	Clinical Support Services: Operating Theatres		
CE	Clinical Support Services: Rehabilitation/ Allied Health			
	CE	Clinical Support Services: Rehabilitation/ Allied Health		
	CEA	Clinical Support Services: Rehabilitation/ Allied Health: Physiotherapy		
	CEB	Clinical Support Services: Rehabilitation/ Allied Health: Cruysionerapy		
	CEC	Clinical Support Services: Rehabilitation/ Allied Health: Audiology		
	CED	Clinical Support Services: Rehabilitation/ Allied Health: Speech Therapy		
	CEE	Clinical Support Services: Rehabilitation/ Allied Health: Directics		
	CEF	Clinical Support Services: Rehabilitation/ Allied Health: Orthotics and Prostetics		
	CEG	Clinical Support Services: Rehabilitation/ Allied Health: Podiatry		
	CEH	Clinical Support Services: Rehabilitation/ Allied Health: Social Welfare		
	CEIT	Cannel Support Services Reinaumation American Social Menure		
CF	Clinical Support Services: Spinal Unit			
	CF	Clinical Support Services: Spinal Unit		
CG	Clinical Support Services: Stroke Unit			
	CG	Clinical Support Services: Stroke Unit		
СН	Clinical Support Services: Sterile Supply Unit			
	СН	Clinical Support Services: Sterile Supply Unit		
СІ	Clinical Support Services: Outsourced Clinical Support Services			
	CI	Clinical Support Services: Outsourced Clinical Support Services		
	CIA	Clinical Support Services: Outsourced Clinical Support Services: Laboratory		
	CIB	Clinical Support Services: Outsourced Clinical Support Services: Blood Bank		
C	Clinical Support Services: Pharmacy Unit			
	c	Clinical Support Services: Pharmacy Unit		
СК	Clinical Support Services: Clinical Engineering			
	СК	Clinical Support Services: Clinical Engineering		
	СКА	Clinical Support Services: Clinical Engineering: Clinical Workshops		
CL	Clinical S	upport Services: Mortuary/ Autopsy Unit		
	CL	Clinical Support Services: Mortuary/ Autopsy Unit		
	CLA	Clinical Support Services: Mortuary/ Autopsy Unit: Hospital Mortuary		
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		CLB	Clinical Support Services: Mortuary/ Autopsy Unit: Forensic Mortuary				
0	ADN	ADMINISTRATIVE SERVICES					
	D		STRATIVE SERVICES				
		D	ADMINISTRATIVE SERVICES				
	DA	A Administrative Services: Admission and Patient Support Unit					
		DA	Administrative Services: Admission and Patient Support Unit				
		DAA	Administrative Services: Admission and Patient Support Unit: Reception				
		DAB	Administrative Services: Admission and Patient Support Unit: Admissions				
		DAC	Administrative Services: Admission and Patient Support Unit: Waiting				
		DAD	Administrative Services: Admission and Patient Support Unit: Records				
		DAE	Administrative Services: Admission and Patient Support Unit: Records Archives				
		DAF	Administrative Services: Admission and Patient Support Unit: Religious Support				
		DAG	Administrative Services: Admission and Patient Support Unit: Commercial (Shops and Kiosks)				
	DB Administrative Services: Administration						
		DB	Administrative Services: Administration				
	DC Administrative Services: Training and Resource Centre						
		DC	Administrative Services: Training and Resource Centre				
		DCA	Administrative Services: Training and Resource Centre: Training				
		DCB	Administrative Services: Training and Resource Centre: Resource Centre				
	FACI	ACILITIES MANAGEMENT SERVICES (HOSPITAL SUPPORT SERVICES)					
	E FACILITIES MANAGEMENT SERVICES (HOSPITAL SUPPORT SERVICES)						
		E	FACILITIES MANAGEMENT SERVICES (HOSPITAL SUPPORT SERVICES)				
	EA	Facilities	Management Services: Kitchen				
		EA	Facilities Management Services: Kitchen				
	EB	Facilities	Management Services: Laundry and Linen				
		EB	Facilities Management Services: Laundry and Linen				
	EC	<b>Facilities</b>	Management Services: FM Support Services				
		EC	Facilities Management Services: FM Support Services				
		ECA	Facilities Management Services: FM Support Services: Central Cleaning				

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	ECB	Facilities Management Services: FM Support Services: Portering		
	ECC	Facilities Management Services: FM Support Services: Housekeeping		
	ECD	Facilities Management Services: FM Support Services: Safety and Security		
ED	Facilities	Management Services: Transport		
	ED	Facilities Management Services: Transport		
EE	Facilities	Management Services: Waste		
	EE	Facilities Management Services: Waste		
EF	Facilities Management Services: Central Stores			
	EF	Facilities Management Services: Central Stores		
	EFA	Facilities Management Services: Central Stores: Bulk Stores		
	EFB	Facilities Management Services: Central Stores: Condemned Equipment		
EG	Facilities Management Services: Clinical Engineering			
	EG	Facilities Management Services: Clinical Engineering		
EH	Facilities Management Services: Building and Grounds Maintenance			
	EH	Facilities Management Services: Building and Grounds Maintenance		
	EHA	Facilities Management Services: Building and Grounds Maintenance: Maintenance Management and Support		
	EHB	Facilities Management Services: Building and Grounds Maintenance: Workshop General		
	EHC	Facilities Management Services: Building and Grounds Maintenance: Workshop Mechanical		
	EHD	Facilities Management Services: Building and Grounds Maintenance: Workshop Paint		
	EHE	Facilities Management Services: Building and Grounds Maintenance: Workshop Carpentry		
	EHF	Facilities Management Services: Building and Grounds Maintenance: Workshop Electrical		
	EHG	Facilities Management Services: Building and Grounds Maintenance: Workshop Plumbing		
	EHH	Facilities Management Services: Building and Grounds Maintenance: Workshop Building		
	EHI	Facilities Management Services: Building and Grounds Maintenance: Workshop Air Conditioning (HVAC)		
	EHJ	Facilities Management Services: Building and Grounds Maintenance: Store Flammable		
EI	Facilities Management Services: Plant Rooms			
	EI	Facilities Management Services: Plant Rooms		
	EIA	Facilities Management Services: Plant Rooms: Mechanical		
	EIB	Facilities Management Services: Plant Rooms: HVAC		
	EIC	Facilities Management Services: Plant Rooms: Electrical Services (UPS and Emergency Generator)		
	EID	Facilities Management Services: Plant Rooms: High Tension Substations (HT)		
	EIE	Facilities Management Services: Plant Rooms: Low Tension Substations (LT)		
	EIF	Facilities Management Services: Plant Rooms: Medical Gas		
	EIG	Facilities Management Services: Plant Rooms: Bulk O2		
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		2003			
		EIH	Facilities Management Services: Plant Rooms: Medical Air		
		EII	Facilities Management Services: Plant Rooms: Vacuum		
		EU	Facilities Management Services: Plant Rooms: Boiler		
		EIK	Facilities Management Services: Plant Rooms: Water		
e co	COMMON PUBLIC AREAS				
F		соммо	N PUBLIC AREAS		
		F	COMMON PUBLIC AREAS		
FA	•	Common	Public Areas: Primary Circulation		
		FA	Common Public Areas: Primary Circulation		
		FB	Common Public Areas: Service Support Areas		
g si	SITE				
G	15	SITE			
		G	SITE		
GA	GA Site: Roads, Paving and Parking				
		GA	Site: Roads, Paving and Parking		
GB	в	Site: Sew	erage Plant		
		GB	Site: Sewerage Plant		
GC	c	Site: Wat	er Purification		
		GC	Site: Water Purification		
H AI	ANCILLARY SERVICES				
н	Ya.	ANCILLA	RY SERVICES		
		н	ANCILLARY SERVICES		
HA	A	Ancilliary	Services: Service Support Facilities		
		HA	Ancilliary Services: Service Support Facilities		
		HAA	Ancilliary Services: Service Support Facilities: Mother Lodgers Unit		
		НАВ	Ancilliary Services: Service Support Facilities: Pregnant Mother Waiting (Residential)		
		HAC	Ancilliary Services: Service Support Facilities: Creche		
		HAD	Ancilliary Services: Service Support Facilities: Overnight Ward (Transit Ward)		
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	J	NOT ELSEWHERE CLASSIFIED		
J	NOT ELSEWHERE CLASSIFIED			
NOT		HERE CLASSIFIED		
I	STRUCTU	STRUCTURE		
STR	UCTURE			
	НС	Ancilliary Services: Educational Facilities (Nursing Education Institutions)		
HC		ry Services: Educational Facilities (Nursing Education Institutions)		
	Ancilliary нв	Ancilliary Services: Residential Facilities		



### REFERENCES

Conradie, DCU. 2000. *The use of software systems to implement Case-based Reasoning enabled intelligent components for architectural briefing and design*. PhD, Faculty of Engineering, the Built Environment and Information Technology, University of Pretoria, South Africa.

Cook, DD. 1997. *Design and development of a grammar oriented parsing system*. Master of Science in Computer Science, California State University, Sacramento.

Gold Parsing System. 2014. *GOLD Parsing System Multi-programming Language, Parser*. Internet: <u>http://www.goldparser.org/</u>. Accessed 11 March 2014.

Kolodner, JK. 1993. Case-based reasoning. San Mateo, California: Morgan Kaufmann Publishers.

Meyer, A and Steele, DJ. 2010. Access solutions: Tips, tricks, and secrets from Microsoft Access MVPs. Wiley Publishing, Inc., Indianapolis, Indiana.

Pugh, S. 1996. *Creating innovative products using total design*. Reading, MA: Addison-Wesley.

Ulrich, KT and Eppinger, SD. 1995. Product design and development. New York: McGraw-Hill.

